THE ARCHITECT & BUILDING NEWS

2 SEPTEMBER 1959 VOL. 216 NO. 4 ONE SHILLING WEEKLY

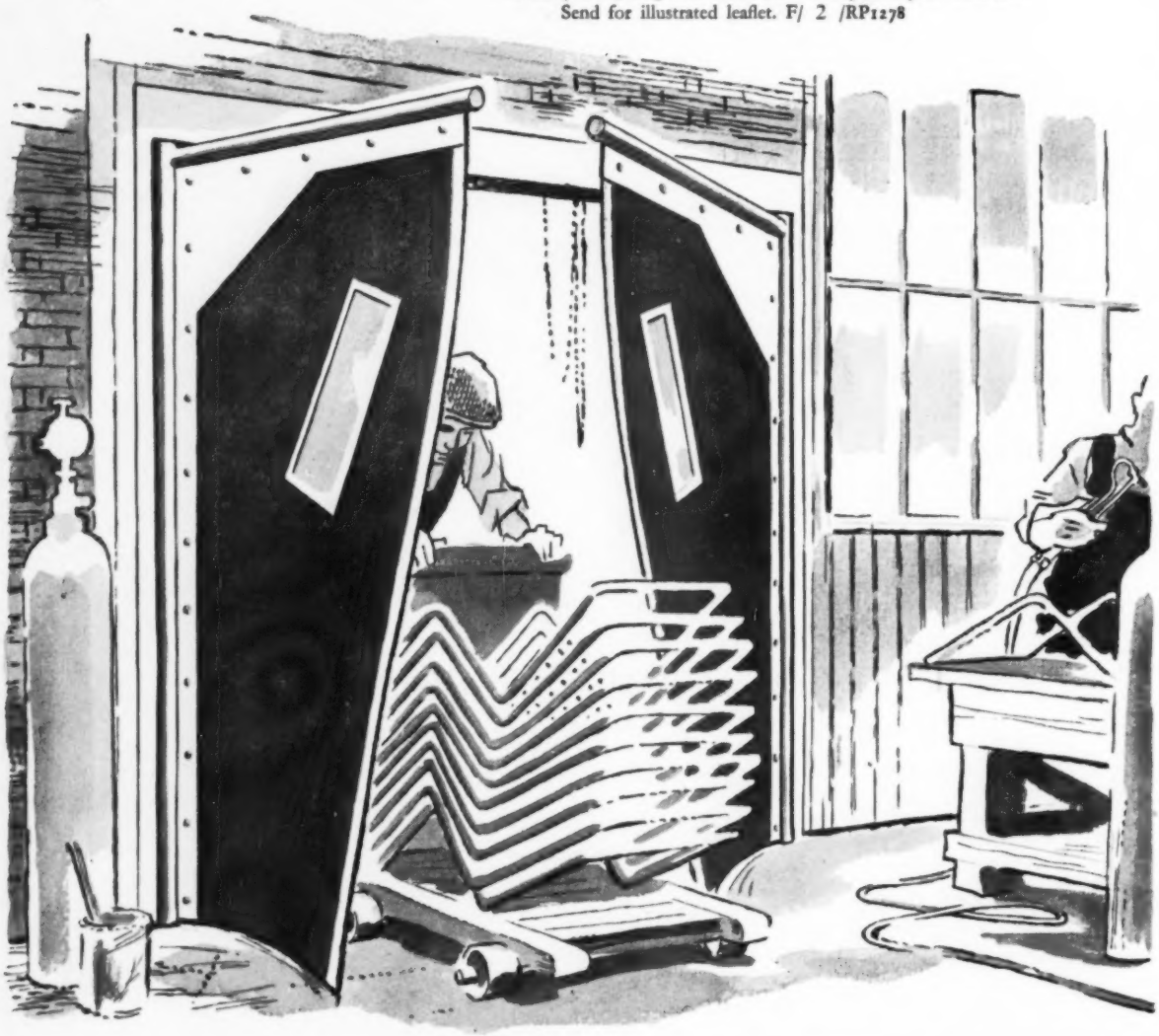
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- **LIBRARY NOTES**
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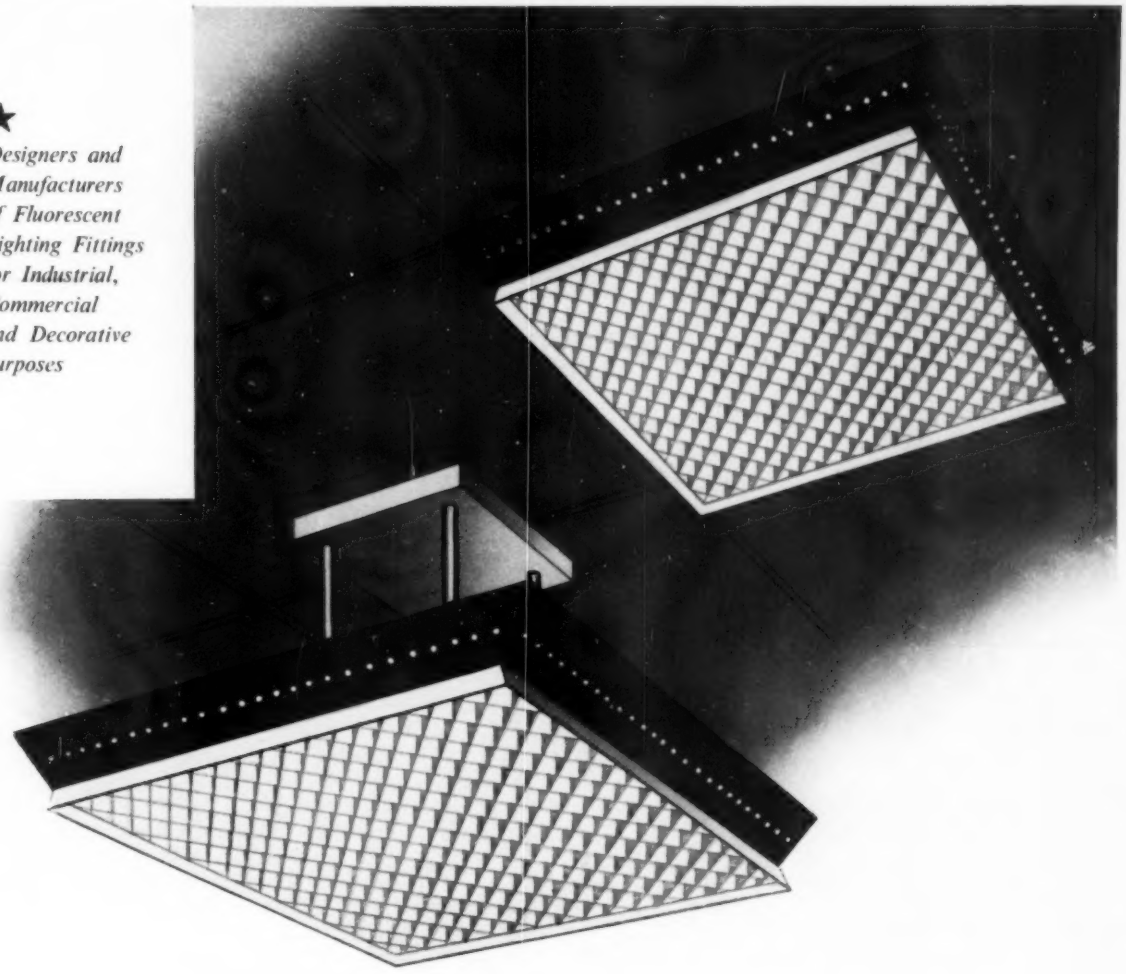
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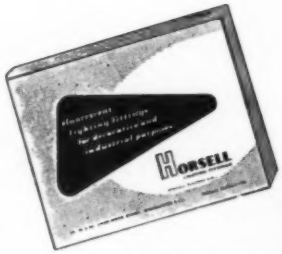
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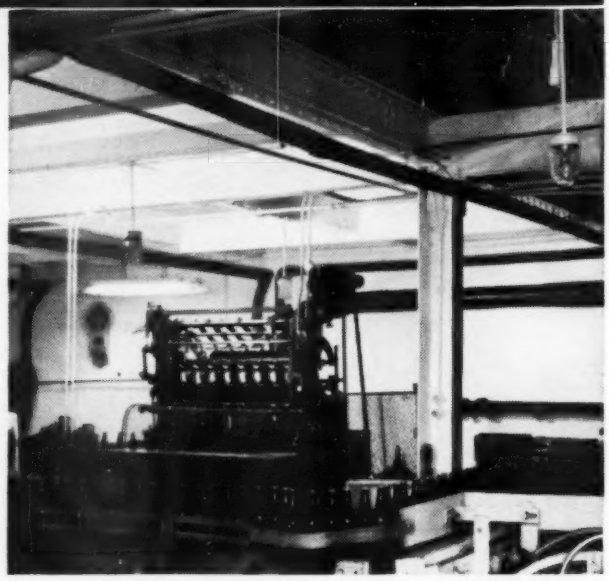
Maintenance of paintwork in a brewery

Over the past 30 years no paint has been found to withstand the severe humidity and chemical attack in brewery bottle-washing departments. These conditions arise from the use of cleaning agents in conjunction with steam and hot water. Even the incorporation of a fungicide in a rubber-based paint has not given complete protection from mould growth.

THE ANSWER:

a paint that lasts for years

Surfaces scrubbed, washed and treated with fungicide, followed by the application of three coats of EPIKOTE L-8 ester containing a fungicidal additive, have resisted attack for over nine months. The photograph shows the mould growth on the ceiling where the rubber-based material was used, in comparison with the excellent condition of the EPIKOTE resin-based coating applied at the same time.



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Aldridge Quicksands County Secondary School, Staffordshire. Lime, Turquoise and Glacier White "Muroglass" spandrel cladding. Architect: A. C. H. Stillman, F.R.I.B.A., Staffordshire County Architect.

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Consultant Architect: Sir Hubert Worthington, R.A.
Executive Architects & Consulting Engineers: Norman and Dawbarn

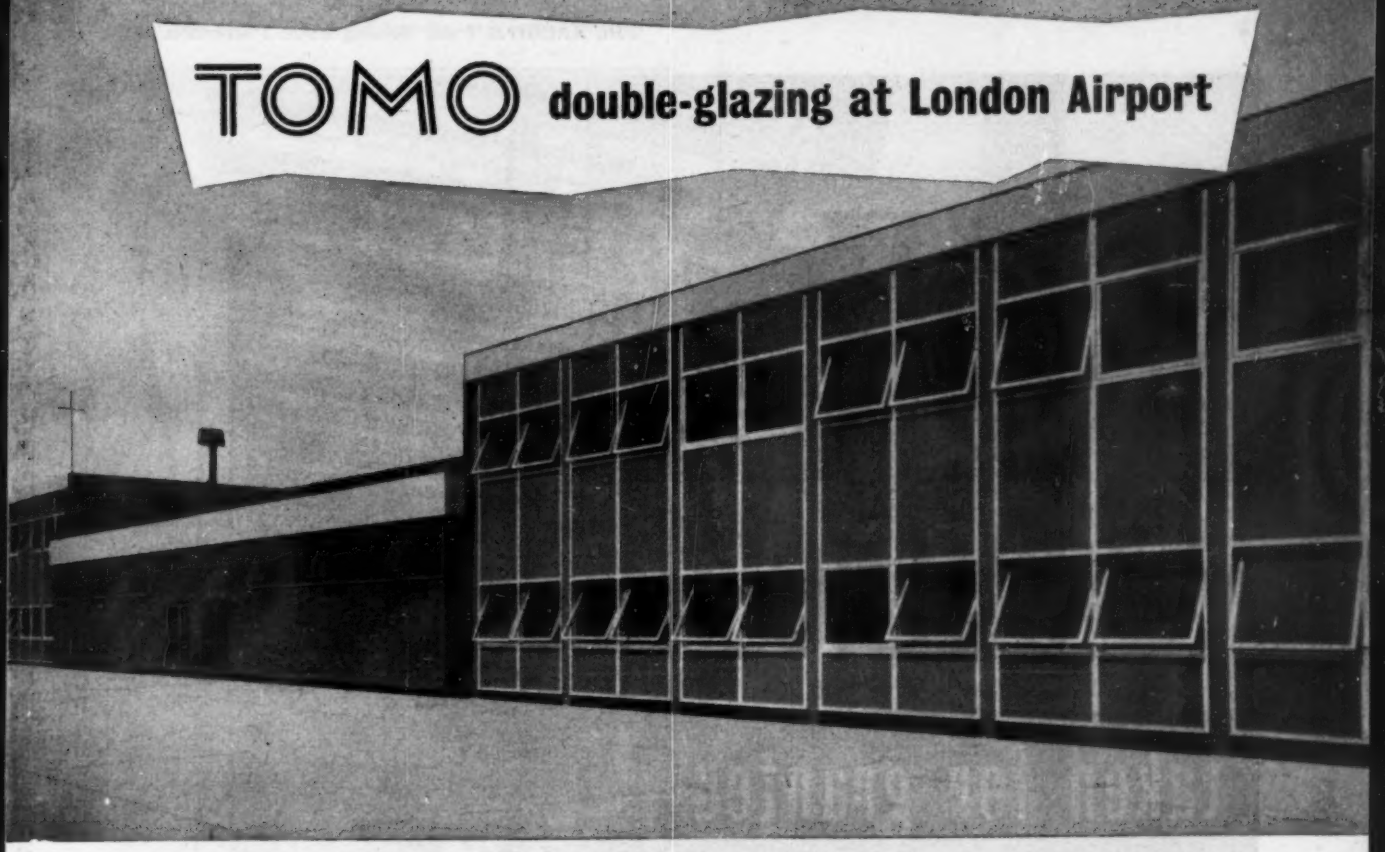
Fine buildings deserve fine finishes; therefore the Hawker-Siddeley Group chose Cerrux finishes for both the interior and the exterior paintwork of their new administrative building at Kingston-upon-Thames.

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TOMO double-glazing at London Airport



Administrative and operations offices for aviation fuel supplies at London Airport, half of which are occupied by Shell-Mex & B.P. Ltd. and the other by Esso Petroleum Co. Ltd. Architect: Frederick Gibberd, C.B.E., P.R.I.B.A., M.T.P.I.

We think you'll agree that the appearance of these attractive offices at London Airport is enhanced by their TOMO double-glazed WINDOWS. But that's only a small part of the story. TOMO double-glazing also offers excellent thermal-efficiency values, remarkable sound-reduction properties, finely-controlled ventilation and total indoor window-cleaning.

On the subject of thermal efficiency, we should like to refer you to the report of a recent B.R.S. test quoted on the right. It speaks volumes. When you work within whistling distance of aircraft, sound reduction becomes a matter of vital importance. Here TOMO WINDOWS score heavily. The total reduction in sound level depends finally, of course, on the thickness of glass employed and the space between panes. Using 32-ounce glass spaced at 1¼in, TOMO double-glazing gives a reduction of approximately 40 decibels and will, we hope, save Shell-Mex and Esso personnel not a few headaches in the future.

One last point, TOMO double-glazed WINDOWS are suitable for inward or outward opening and can be top-hung, bottom-hung, side-hung or pivot-hung. Any further information you may require will be gladly supplied.

BUILDING RESEARCH STATION TESTS

When a standard-production TOMO WINDOW Wall-Unit (8ft. x 8ft.) was tested at the Building Research Station, Garston, the mean thermal transmittance of the complete unit was found to be 0·31 B.Th.U./sq. ft./h/°F. This is equal to the thermal transmittance of a traditional 11-in. cavity brick wall! This impressive result was further improved to 0·29 when the TOMO pleated blinds, fitted between the panes, were lowered. The U-value of the window-area only was found to be 0·38 which, with TOMO pleated blinds down, became 0·35. At 0·38, TOMO double-glazed WINDOWS are substantially (29%) better than the U-value of 0·47 quoted for conventional double windows in the I.H.V.E. Guide to Current Practice, 1955.

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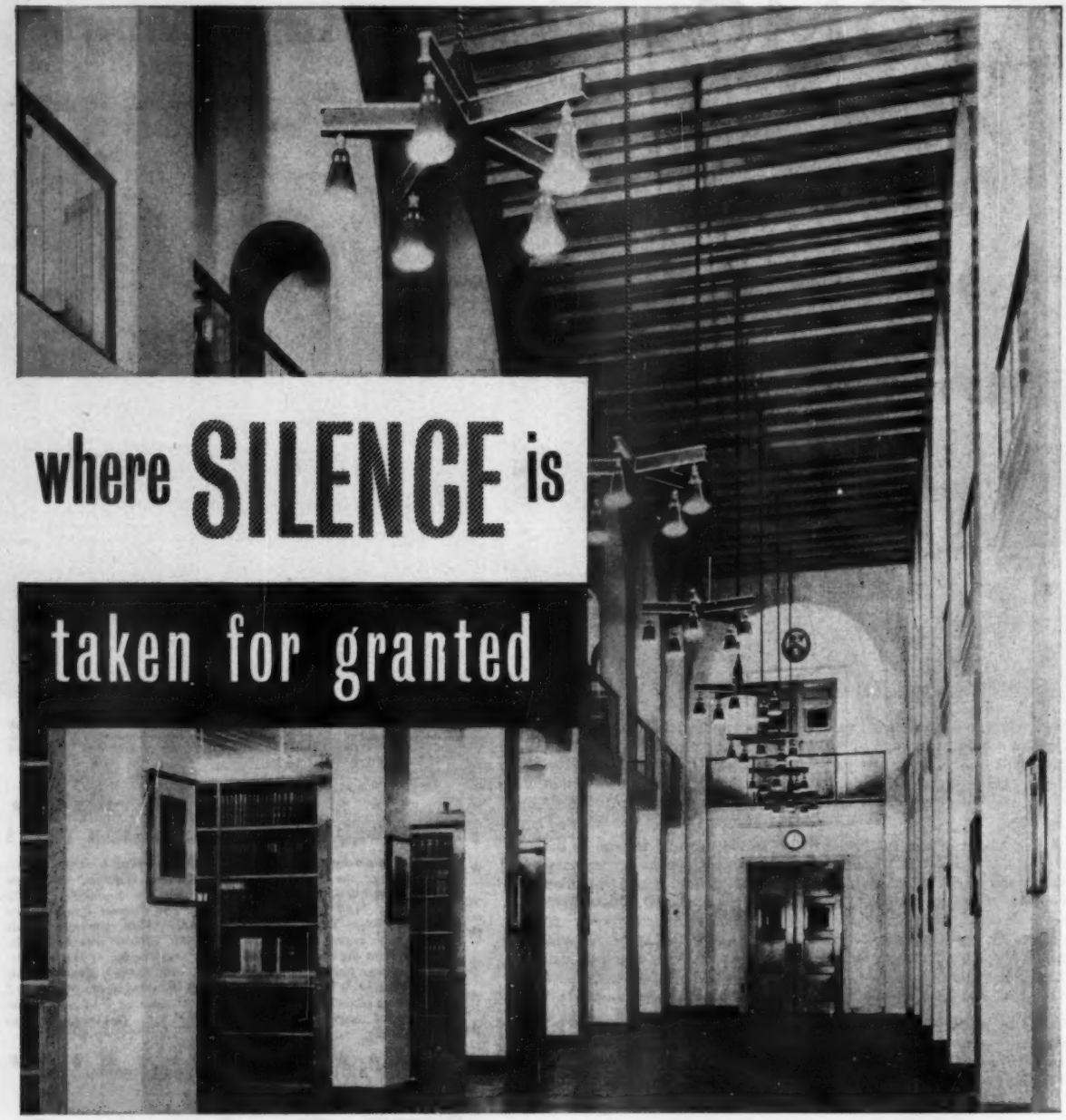
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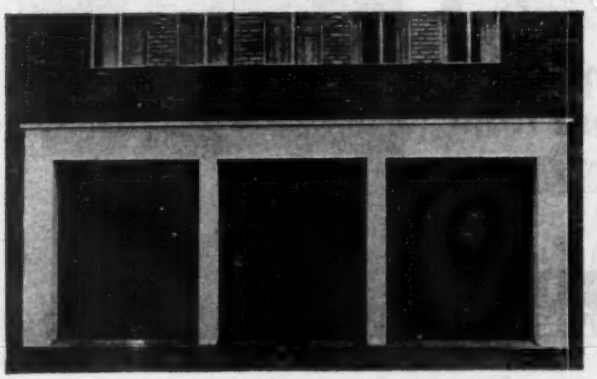
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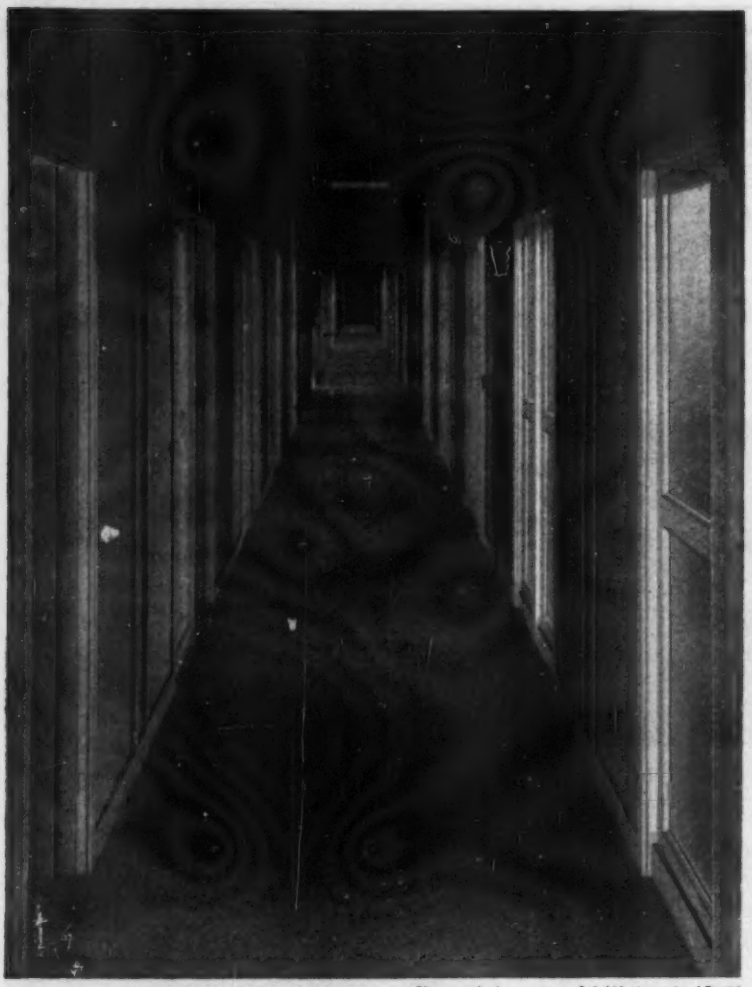


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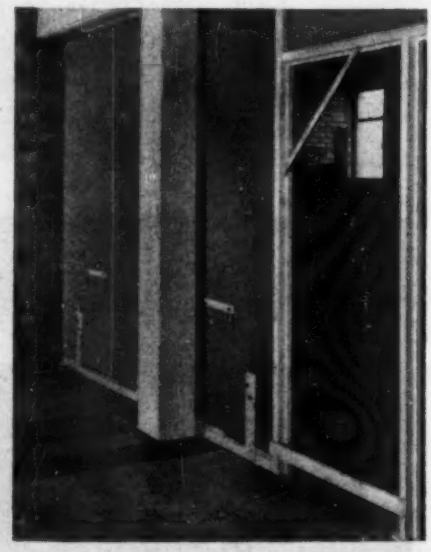
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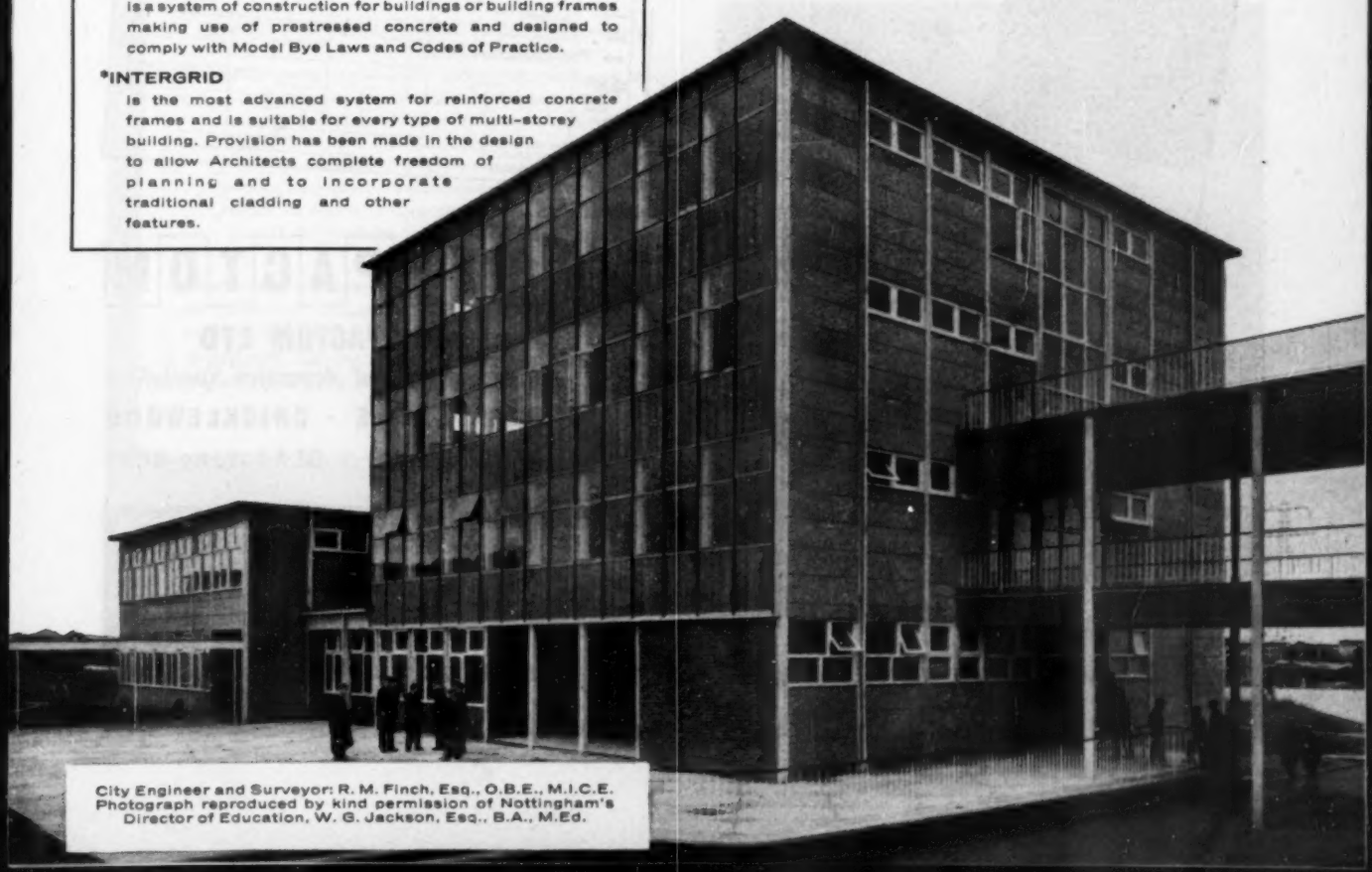
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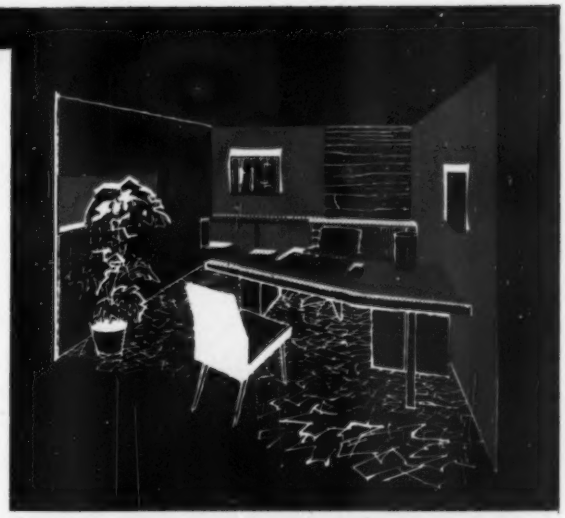
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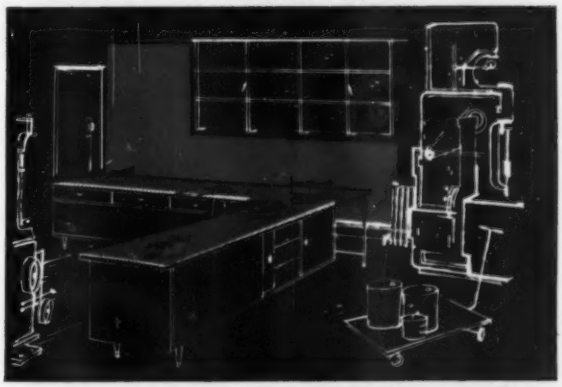
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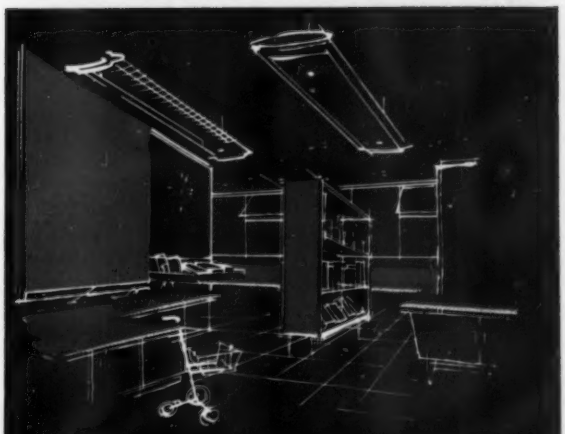
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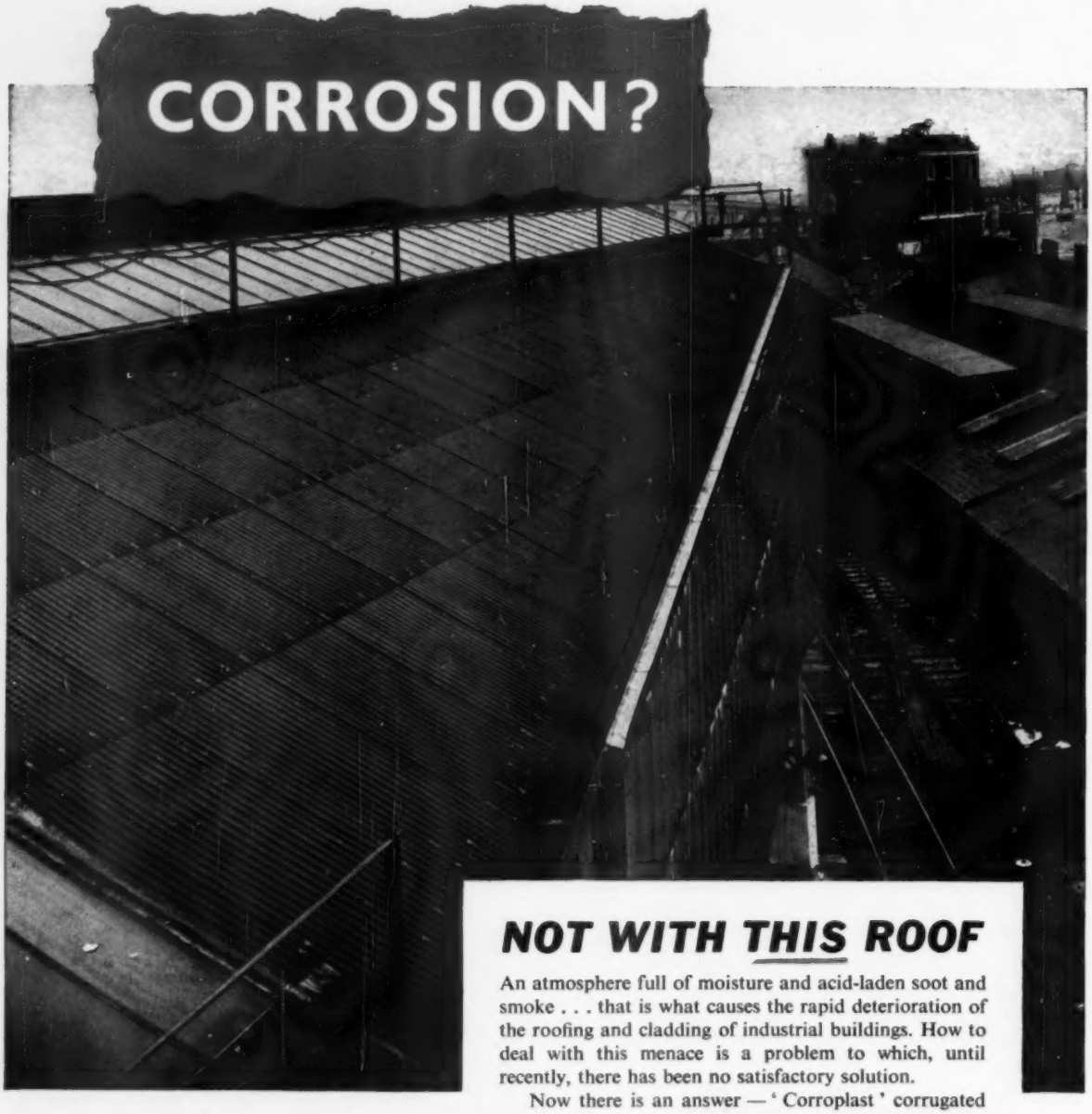
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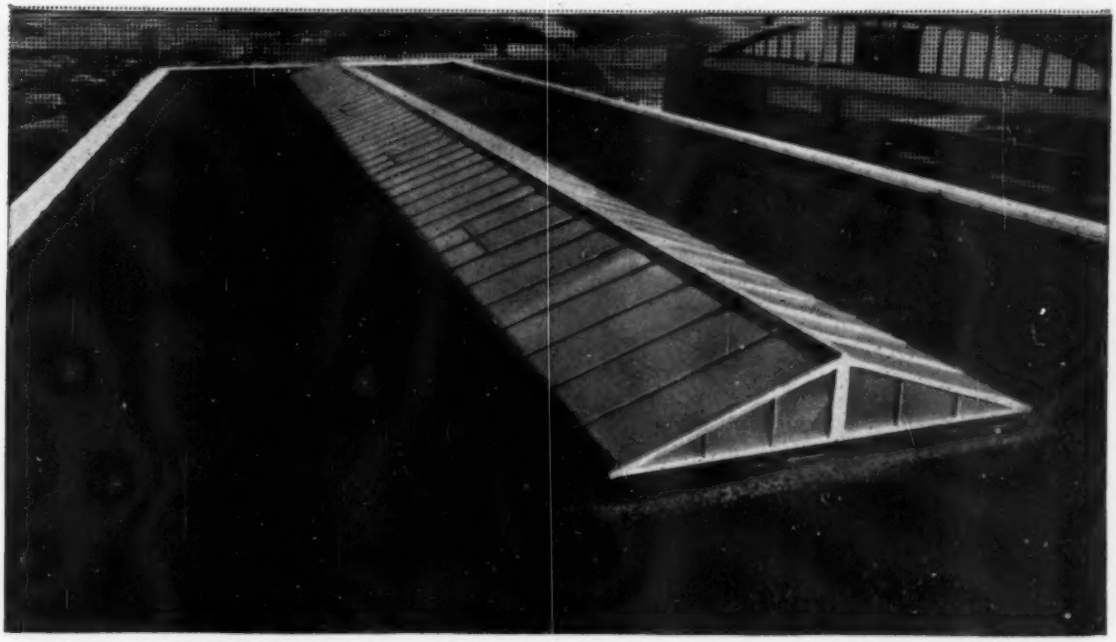
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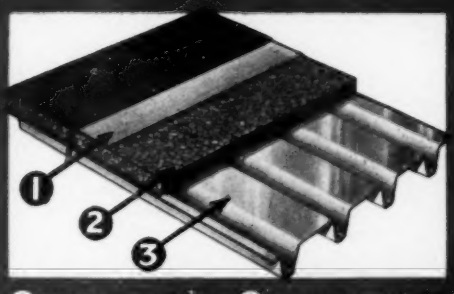
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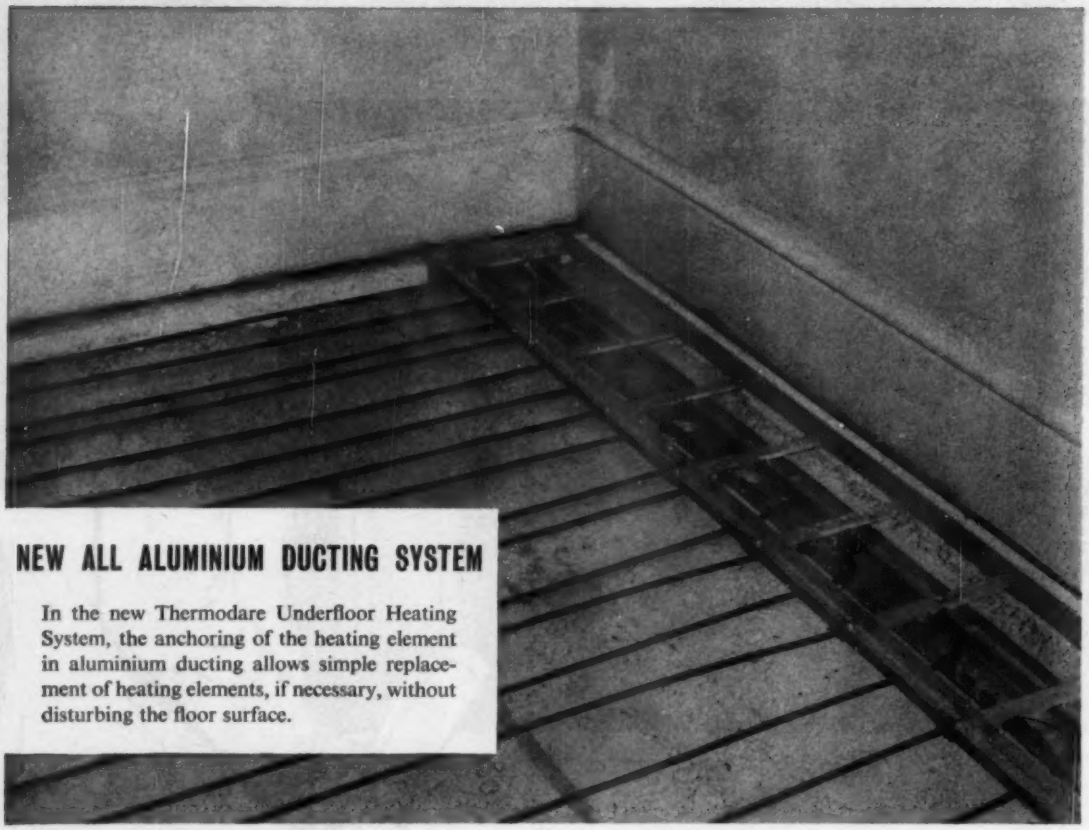
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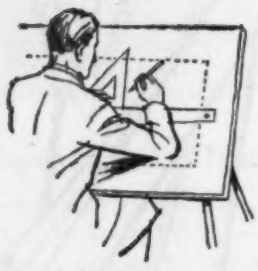
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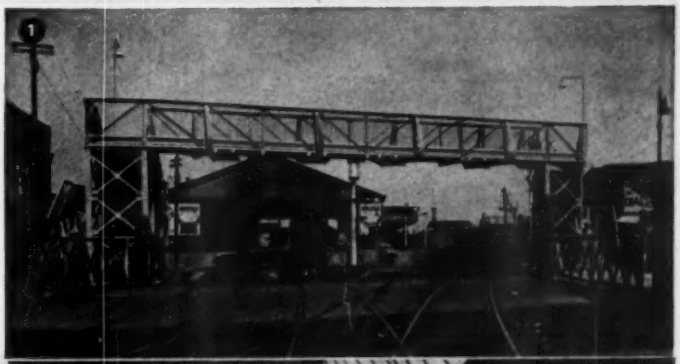
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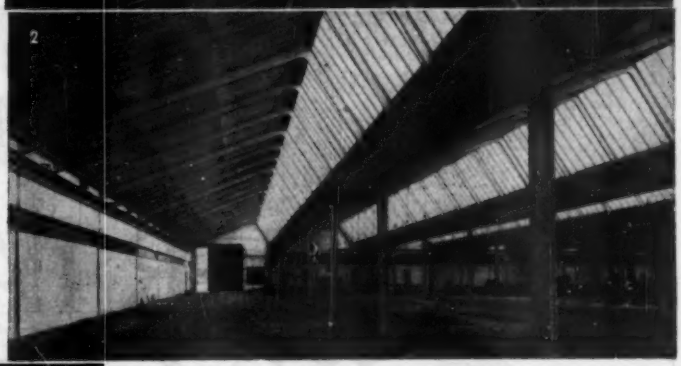
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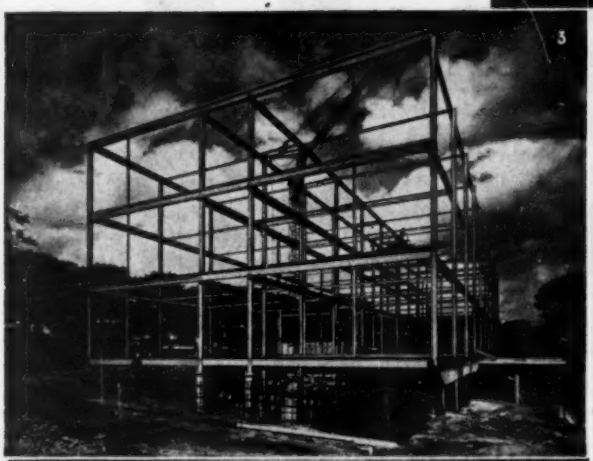
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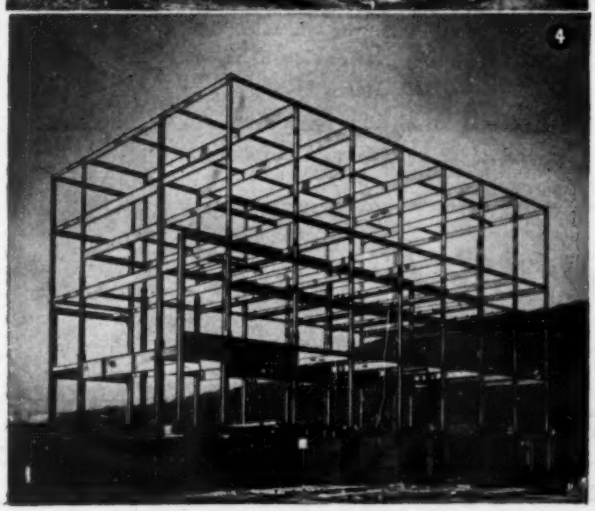
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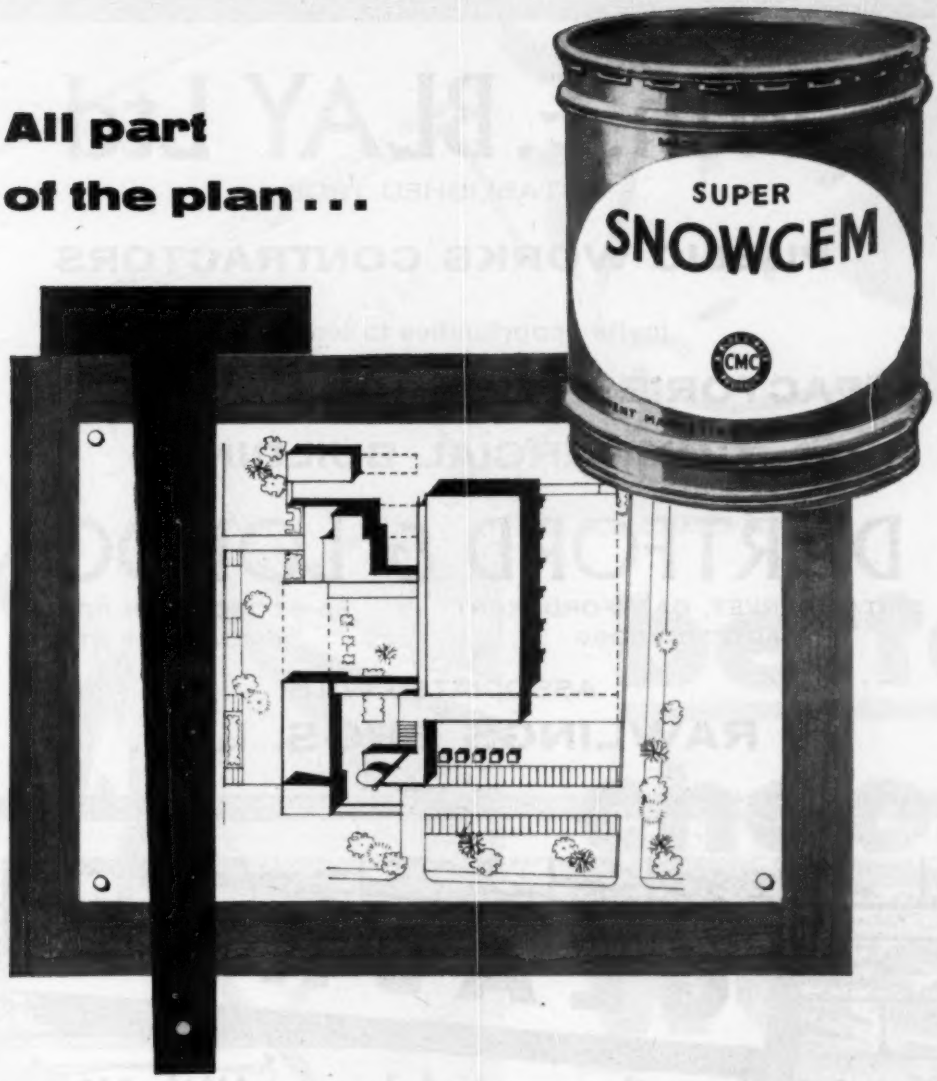
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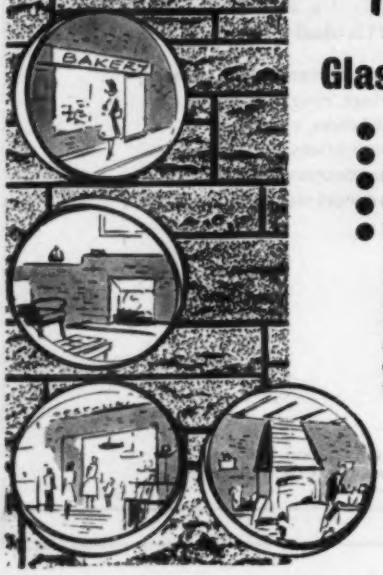
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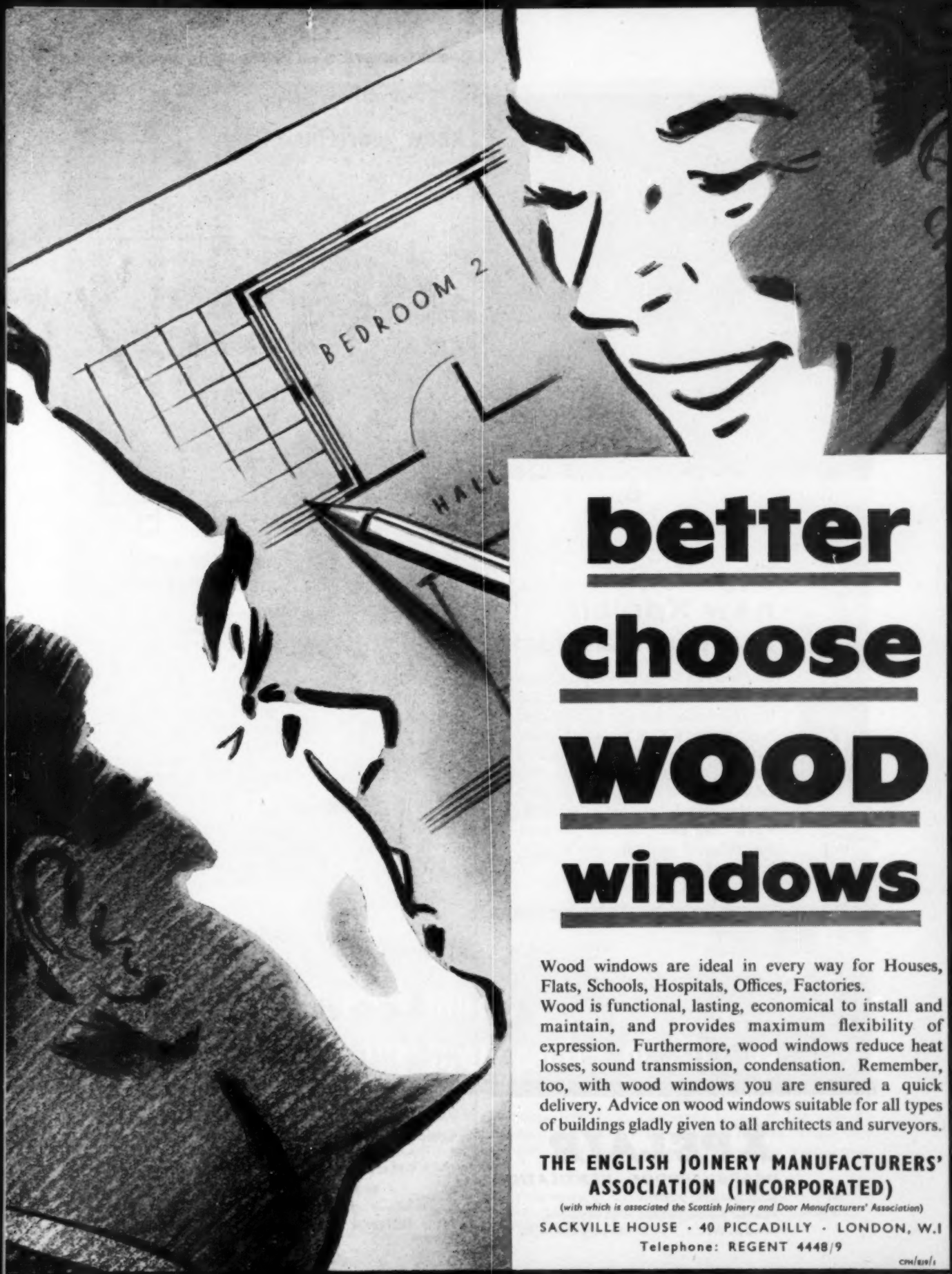
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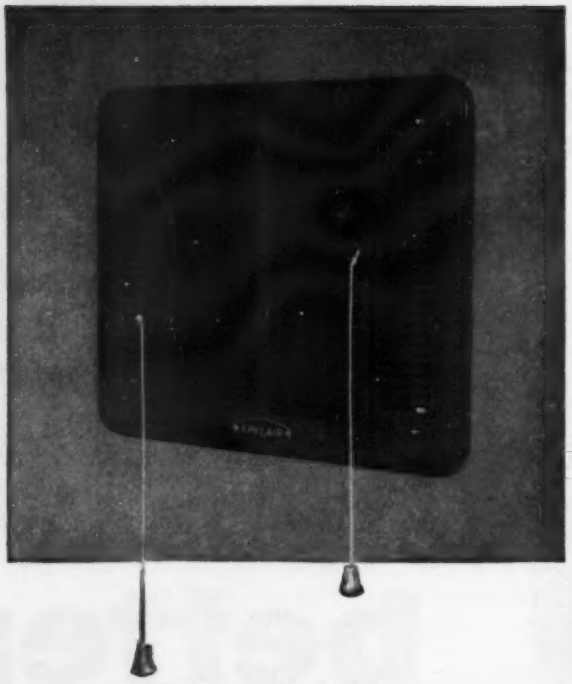
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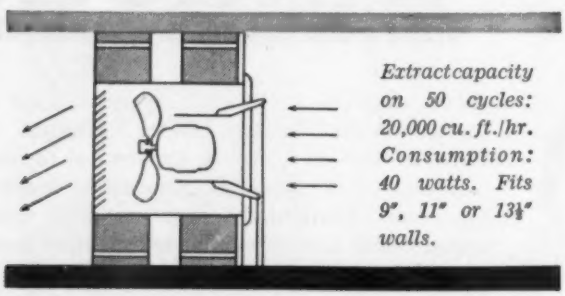
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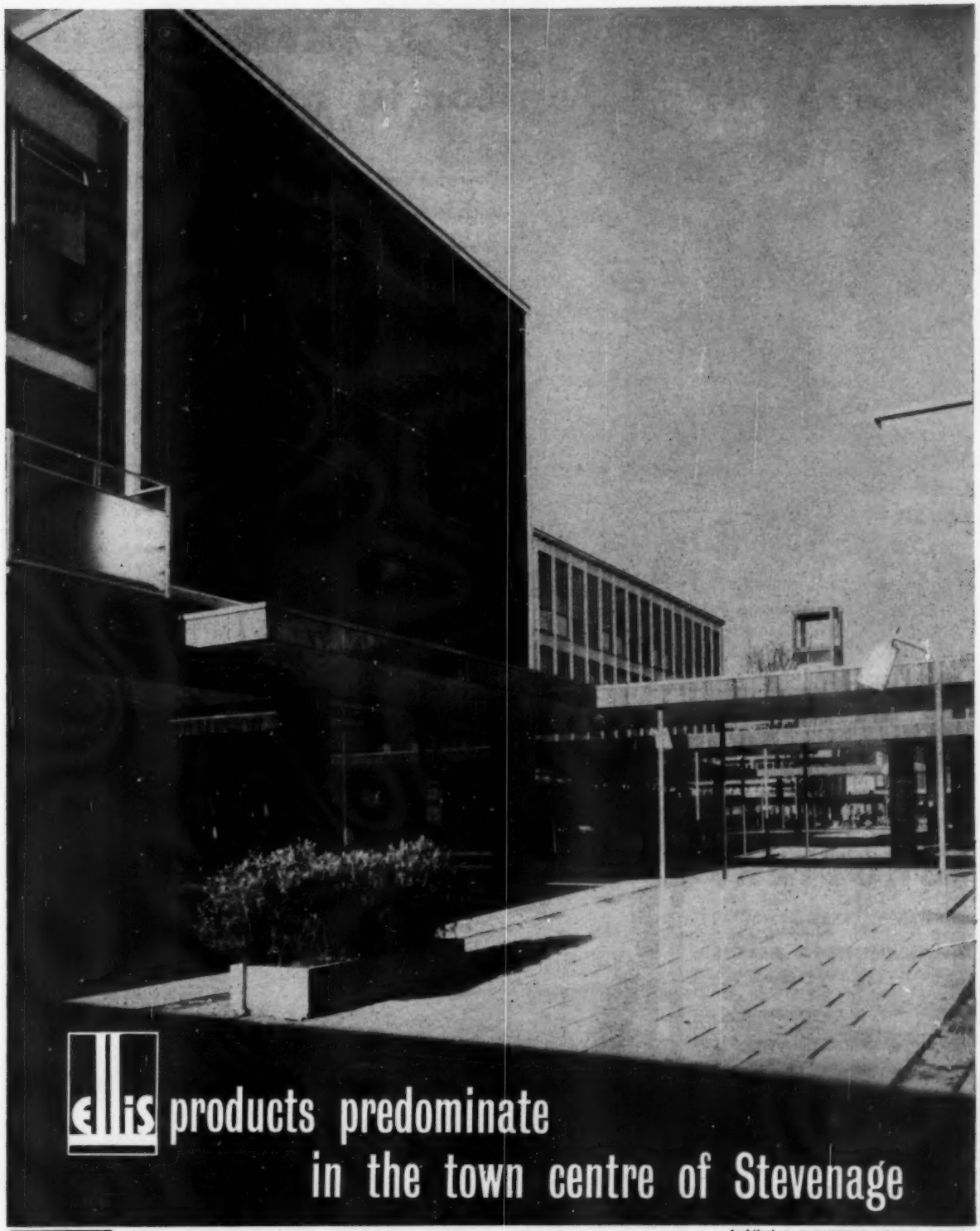
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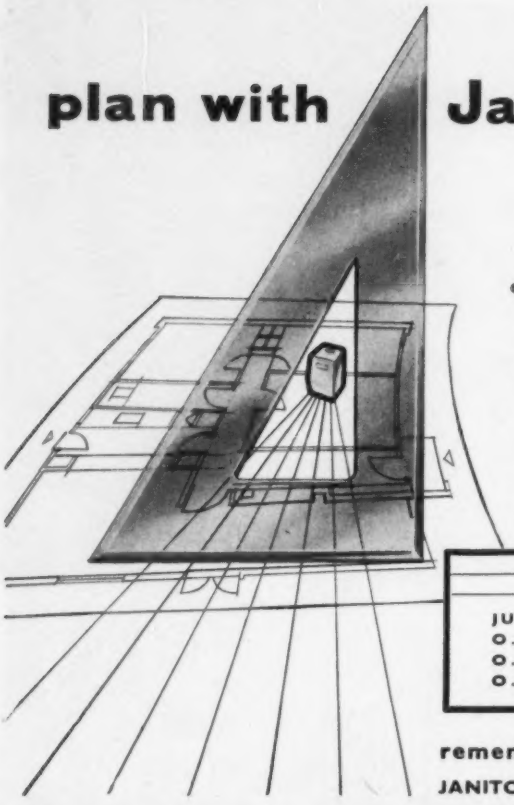
Architect: L. G. VINCENT, A.R.I.B.A., A.M.T.P.I.

The Eastern Electricity Board's offices in Stevenage New Town centre are typical of this modern, thriving community and afford an excellent example of the fine effect achieved by Ellis Kentish flint exposed aggregate panels. Ellis also made the concrete flowerboxes and the specially treated grey concrete slabs for the paving in the foreground.

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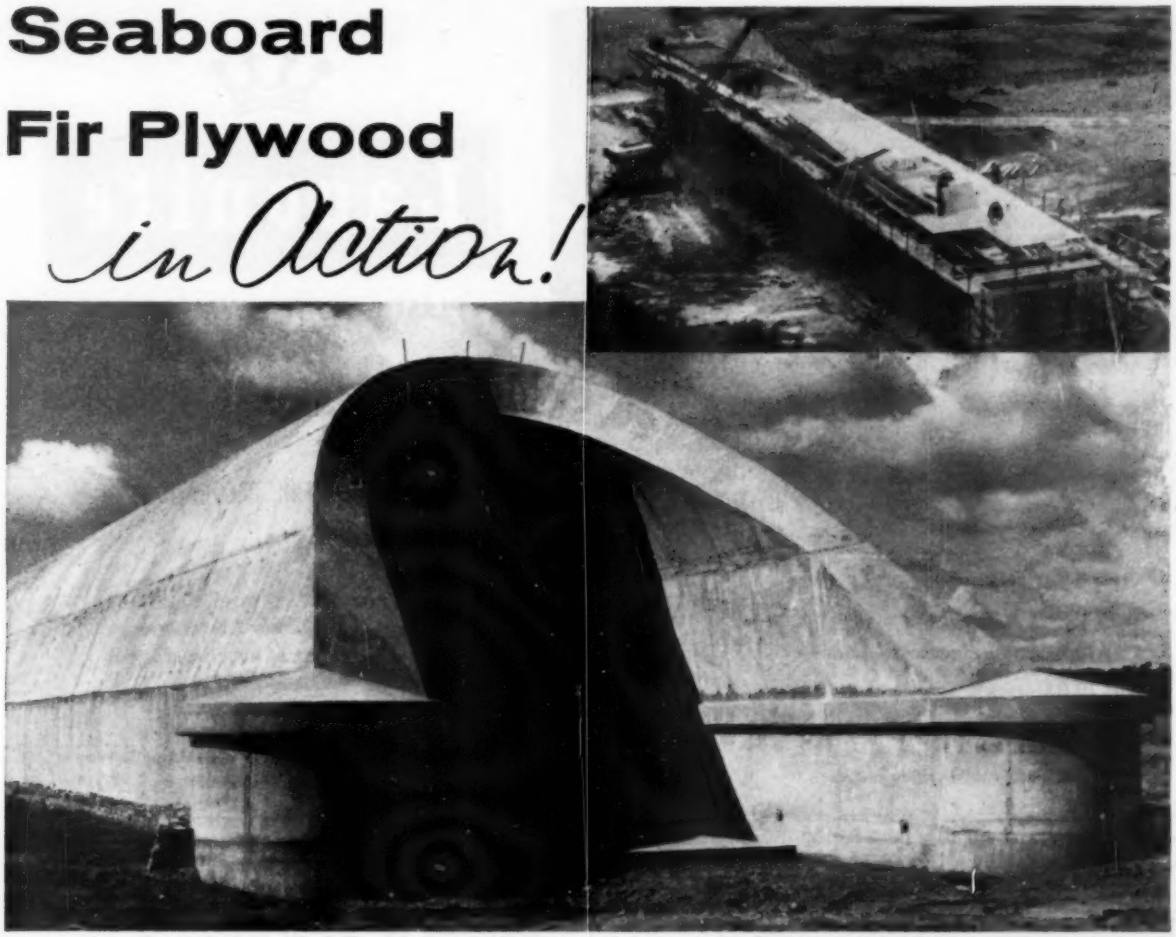
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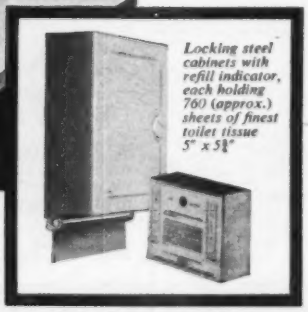


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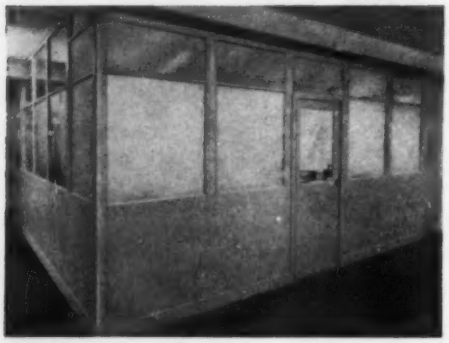


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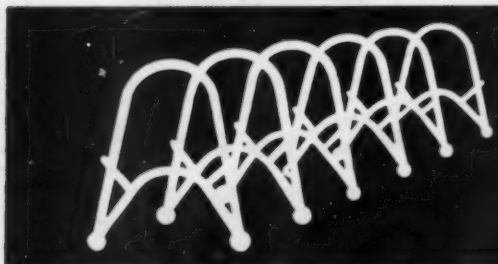
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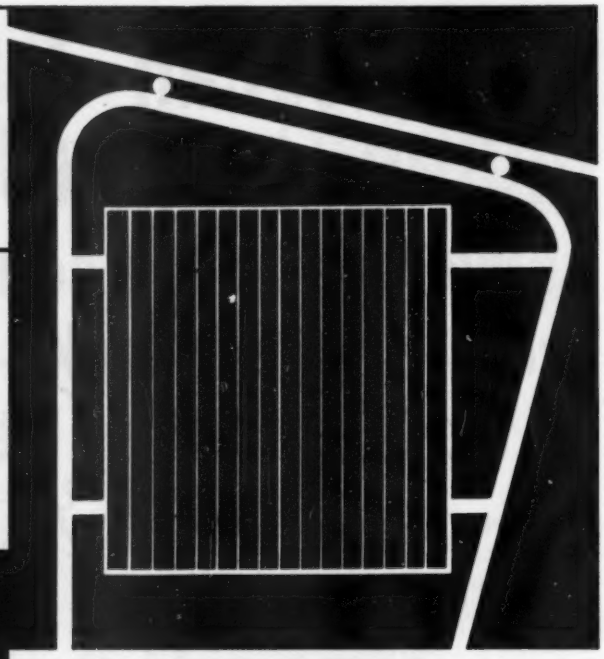
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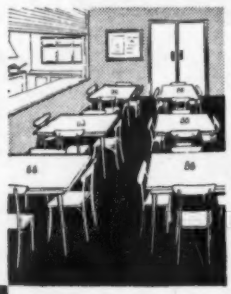
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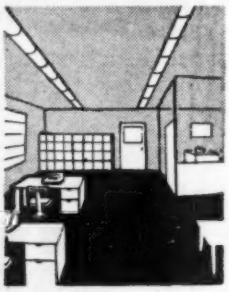
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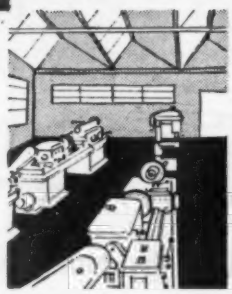
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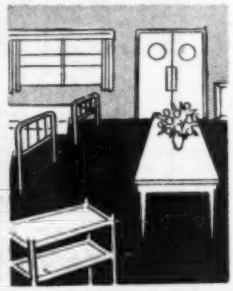
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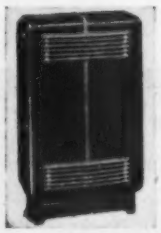
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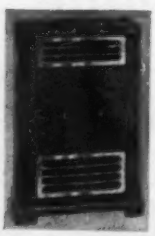
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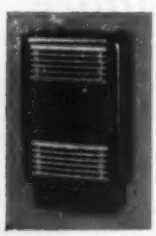
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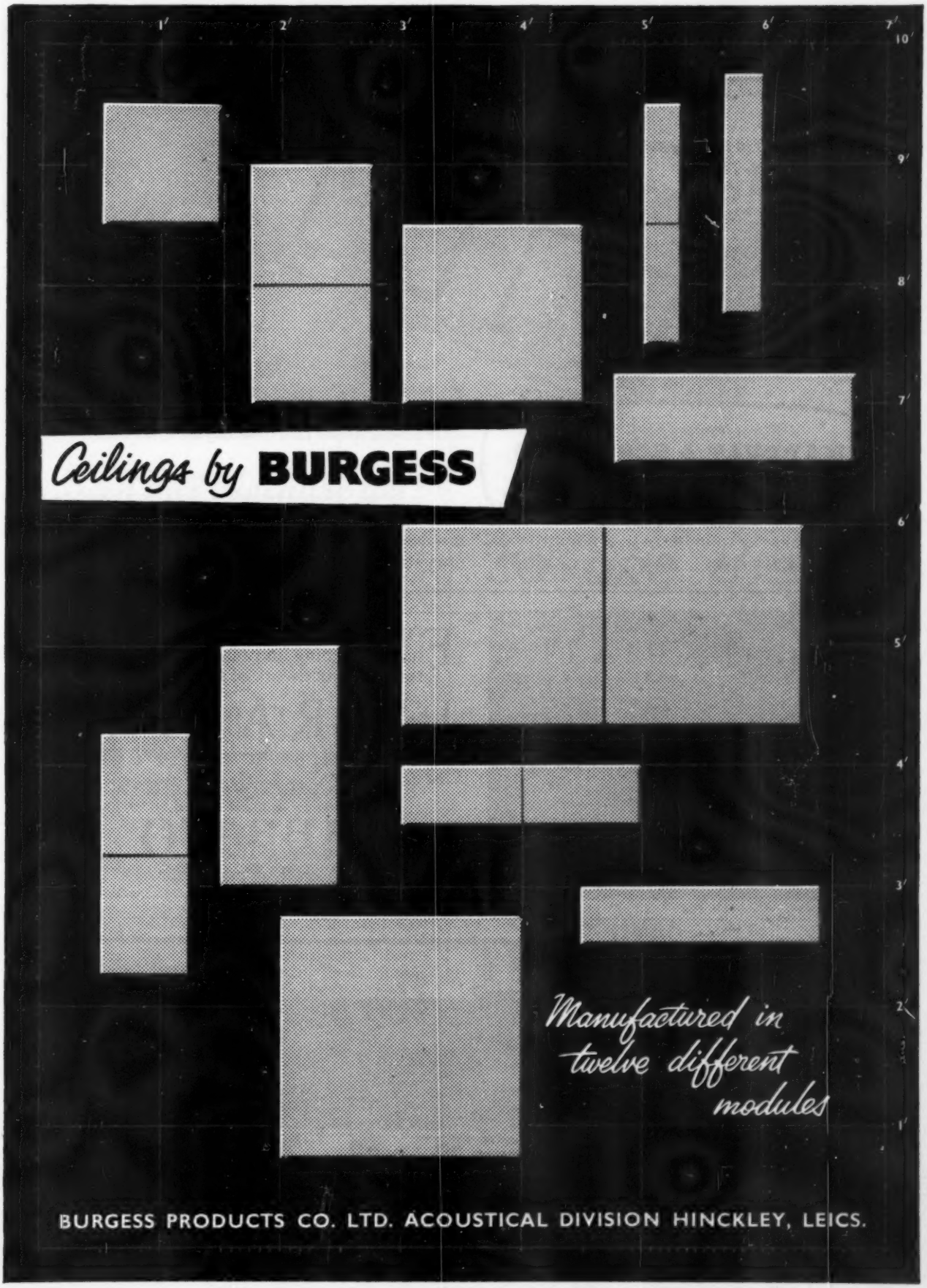
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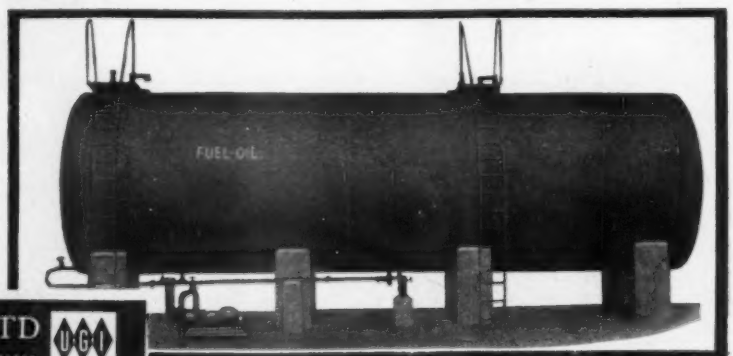
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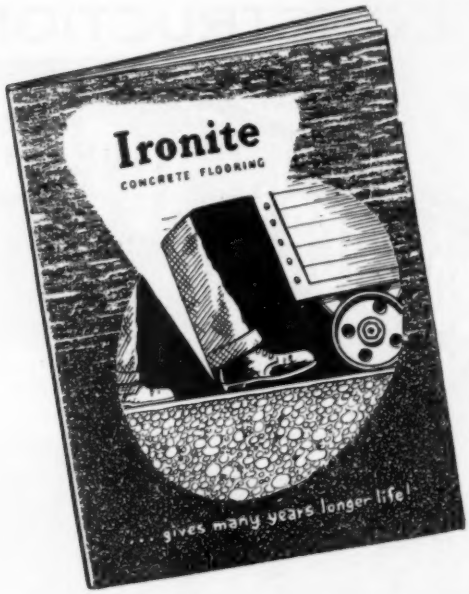
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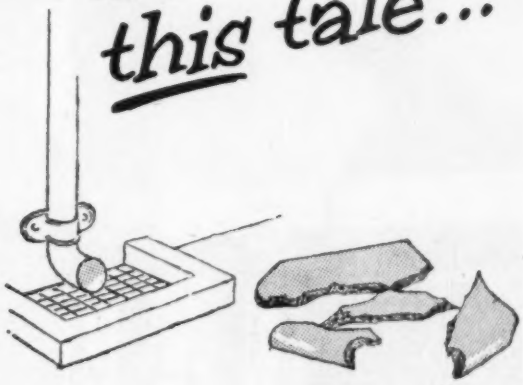
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Vol. 216 No. 4

THE ARCHITECT & BUILDING NEWS

2 September 1959

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CARE OF THE COASTLINE

IN extent and varied beauty our coastline is probably unequalled. But we tend to take it for granted. It has always been there. We walk and climb about on it, swim and play cricket, build sand castles or just doze. It seems ridiculous to suggest that there is any particular problem about it. It is true that every now and then another bit of Norfolk falls off or there is a pother about an oil refinery in Wales. But these are only local troubles, surely; there will always be enough good quality coast to choose from.

In a paper to the Royal Town Planning Institute, J. R. Adams suggests, however, that we should be more concerned about the coast and that serious problems are already with us which must be solved if we are not to spoil completely a large part of the more readily accessible parts of it.

The caravan problem has been well publicised and is still with us, but is on the way to solution in some areas. Bungaloid growths and ribbon development are often more difficult to restrain and even more damaging and widespread in their results. Negative control is not enough. The local authority must guide the development into well-designed groups fitted into the coastline without spoiling it.

Atomic power stations and oil refineries, not to mention ore stocking grounds, are less easy to manage. By their very nature they are enormous in size. If the present policy of siting atomic power stations as far as possible from large towns continues, many of our wildest and most beautiful stretches of coast will be dominated by these monsters.

Careful siting, design and landscaping can do much to help. As Miss Sylvia Crowe has pointed out clearly, we are faced with the problem of a new and superhuman scale which can only be dealt with either by siting and designing within the existing scale of the countryside or by creating a new landscape round them.

It is heartening that the Minister of Housing and Local Government, in his address* to the National Parks Authorities, at Bakewell, showed he has these problems at heart. His remark "the nation has got to think out more clearly than ever what exactly it wants to make of the National Parks" applies to the coastline. Protection of planting, provision of car parks, litter baskets, etc., are a help, but not enough. Beauty, the product of time, can be quickly and easily lost for generations. More positive official action is needed in particular areas for specific (rather than general) objects. But policy making and legislation alone cannot be successful in creating or sustaining beauty. The public, in work and at leisure, will need to exercise more self-discipline in its freedoms if it is to assist, rather than nullify, the course chosen.

* A. & B.N., August 26, 1959, page 68.

EVENTS AND COMMENTS

YOU, TOO, CAN BE AN AUTHOR

"Anyone", says a blurb on my desk, "who can write a good business letter has all the literary ability he needs to write a good technical or professional book." This means, from my experience of business letters, that authors for good technical and professional books are in very short supply. Perhaps that is what has provoked the F. W. Dodge Corporation, of New York, to offer free a 50-page manual on "Writing and Publishing Your Technical Book". The title suggests that we all in our heart of hearts are just dying to write about drains, camp-sledging or possibly sound insulation. The corporation ought to know what it is talking about for it publishes, among other things, the *Architectural Record, Sweet's Catalog* and the *Dow Service Real Estate Valuation Calculator.*

KENT GRAPPLES WITH THE PYLONS

The Kent County Planning Officer, Mr. James W. R. Adams, a past-president of the Town Planning Institute, has been battling with the South-Eastern Electricity Board about its lines and transformers. This kind of thing is not new, but the fact that Mr. Adams has had some success is worth reporting. The apparently erratic routing of electricity lines and the frequent need to duplicate them were among the things discussed. Mr. Adams managed to persuade the Board and the G.P.O. to share poles in some instances. This really *is* news. Another point gained is that the Board has agreed that where lines are planned through landscape of outstanding scenic beauty, farmers will be informed that the County Council will not necessarily agree to routes designed primarily for agricultural reasons. I imagine, however, that one might argue for years in trying to decide whether a landscape is of outstanding scenic beauty. I hope all the other county planning officers will do as well.

A GUIDE TO CENTRAL HEATING

It is unpleasant to realize that the normal day for starting up the central-heating plant is only a month away. After so splendid a summer the shock of the first cold day will be all the sharper, and consideration of one's own heating problems is likely to have been neglected until the last moment. You had better start thinking now, before your first snivelling cold catches you.

General information on central heating for the more or less ignorant is difficult to find. No one in the industry is, it seems, entirely unbiased, and axes grind loudly if information is asked from the purveyors of solid fuel, gas, electricity or oil. The fact is, that it is extremely difficult to compare heating cost using different types of fuel, and this is mainly because it is almost impossible to devise a proper basis for comparison. In a beautifully printed little book just published by the Coal Utilisation Council, Mr. W. C. Moss, the council's technical manager, has produced a simple guide to central heating, explaining, in simple language, the various types of system and the functions of the various units in the system. The book naturally favours solid fuel; indeed, boilers using other types of fuel are hardly mentioned. It would be surprising, but useful, if they were. This prejudice in favour of solid fuel, though irritating to the seeker after information, does not seriously detract from an excellent guide to the principles of central heating. The solid fuelers have a comparatively easy propaganda task. Theirs is the cheapest fuel, which ever way you look at it. The smokeless varieties are less dirty to handle than coal, and some of the latest boilers are indistinguishable from and nearly as clean in operation as refrigerators. Automatic control and gravity feed make human attention less arduous. Efficiency increases yearly, and first cost is considerably less than for other types of boiler. After reading this book, no one in his senses would use anything but solid fuel, at least that is what he thinks until he next has to go to the coal-hole on a cold dark night in the rain, or has to get out of bed to remove the ash from the boiler.

In modern civilization the storing of a basically dirty solid fuel in individual homes is a ridiculous anachronism. The storage of oil fuel is little better, but oil can, at least, be put through a pipe. Gas and electricity are the only civilized fuels, and of these electricity has gas by the throat except, at present, for cooking. It is the cost of the non-solid fuels which puts them out of the running where economics only are being considered. The price you are prepared to pay for convenience will in the end determine the fuel you use. At the same time it will salve your conscience to know that, as it happens, the more expensive the fuel the greater the efficiency of the appliances which use it.

We must be grateful to the C.U.C. for producing this book, but we still have no unbiased guide to the fuels, and with millions of tons of coal stored in quarries and other large holes in the ground, it is certainly no use expecting the Ministry of Fuel to produce one.

ADVERTISING ON LITTER BINS

Two days before my comment on this subject appeared last week, I saw that the Minister of Housing and Local Government appeared to be encouraging the idea. However, it is not quite as bad as I feared. Mr. Brooke suggests that the advertisement should not be larger than 8in by 1in and should be fixed to the *inside* of the bins at the back immediately below the rim. I suppose the Minister is thinking of saving money on the rates. I still do not like the scheme for it is certain to prove to be the thin end of the wedge. For a Minister to permit advertising on litter bins is bad enough but actively to encourage it, even to get free bins, is deplorable. Mr. Brooke has been badly advised.

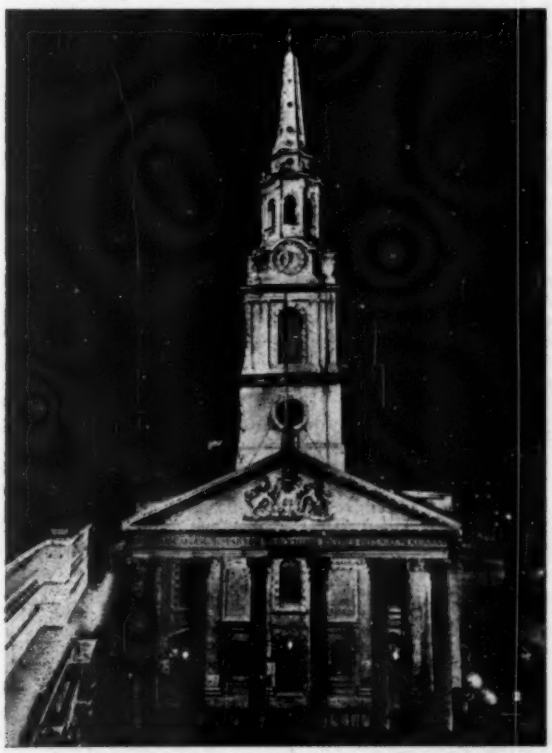
SAVE THAT ARCH

The two-hundredth anniversary of the birth of William Wilberforce, who led the campaign for the abolition of slavery, is likely to be celebrated in Stroud, Gloucestershire, by the abolition of a dignified classical arch erected in memory of the successful outcome of that campaign. As you can see from my picture the arch is a far more distinguished memorial than that horrid little pepper-pot drinking fountain which used to stand in Parliament Square. It would be a great pity to pull it down. In the words of the caption supplied with the picture, "it has now been encroached upon by modern houses". As far as one can see it is not in the way, and it is certainly very decorative. A member of the Gloucestershire County Council described it as a "monstrosity", but he is clearly an ignorant fellow.

The arch was erected by Mr. Henry Wyatt over the carriageway to his house. He died in 1847 and the estate was eventually used for private housing. A council housing estate was planned on the other side of the gate in 1933 and between the two, the arch was left on a site unrelated to its surroundings. Now, needless to say, some people want to pull it down; they say it is unsafe, others say this is nonsense and want to see it preserved, a third lot suggest its removal to another site. The arch actually belongs to the Stroud U.D.C. It is said that removal would cost £1,000, but no one is willing to foot the bill. All the preservation societies have been called in and the Advisory Committee on Buildings of Special Architectural or Historic Interest (A.C.B.S.A.H.I. to some) has said that its members "were unanimously of the opinion that this was a good example of monumental architecture and that, as a memorial to the abolition of slavery, it had distinct historical interest, and was worthy of respect". Although there are memorials to William Wilberforce and other leaders of the movement, this is believed to be the only memorial to the abolition of slavery in the British Colonies. Triumphal arches are among the most useless and most decorative architectural constructions, but not infrequently they commemorate events which would better be forgotten. Here is one erected in memory of something very worthwhile. Mr. Stanley Hamp has sketched a scheme to tie its present site into its surroundings. If this can be done at resonable cost it would be far better than removal to a park. Remember Temple Bar.



*St. Martin-in-the-Fields, Trafalgar Square, now floodlit for the first time since the Coronation. This is one of London's few signed buildings. Do you know who the architect was and where to find his name?**



* James Gibbs. On the bottom member of the entablature between the middle two columns.

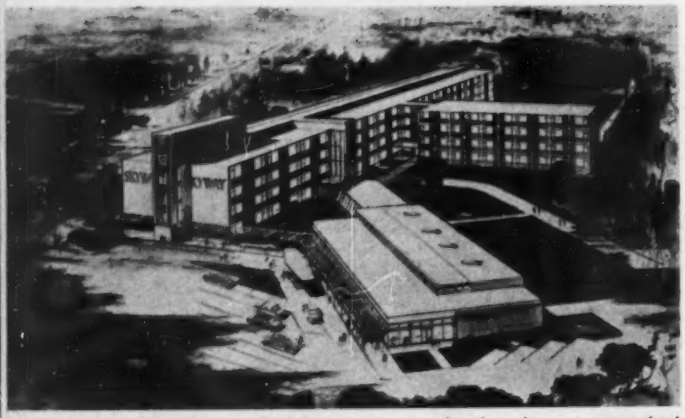
CAR REVOLUTION

If we can believe what we read in reports and advertisements, the British Motor Corporation is about to change the face of small car motoring, both here and abroad. The American car industry is about to do the same. The B.M.C. weapons for doing this are the new Austin 7 and the Morris Mini-Minor. The one does not differ radically from the other, in fact the only difference is in the radiator grille. The U.S. answer is not yet known. To anyone critically interested in the appearance of things, the average modern car offends in a number of ways. If we take American practice as the worst (but even so, worsening each year) and purpose-made Italian as best, we find the British manufacturer far nearer the U.S. end of the scale than the Italian. There are exceptions. The B.M.C., by calling in Farina, has produced in the Austin A40 easily the neatest stock car at present on the British market. However, some of the other designs attributed to Farina from the same group of companies are so unsatisfactory in detail that it is difficult to believe that he had the last word.

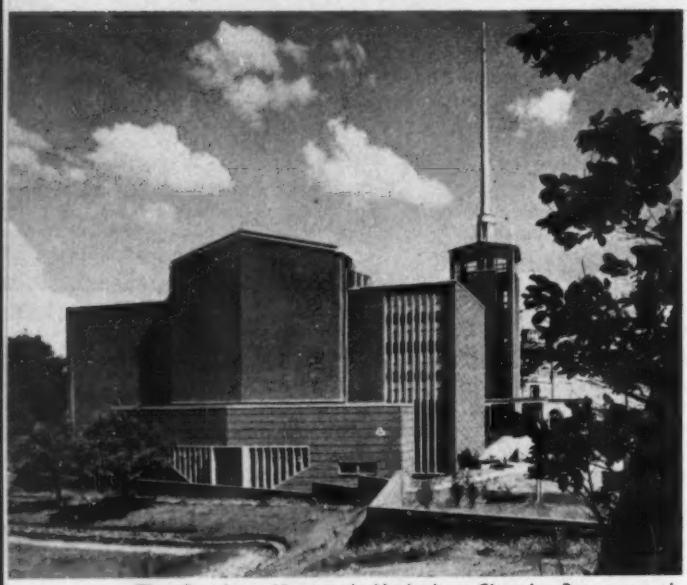
The two new cars selling at £500, including purchase tax, are likely to appeal to architects because of their complete lack of nonsense. I have seen no coachwork designer mentioned. Can it be that at long last the British motor manufacturer has realized that keeping up with the Jones's on the road does not depend on borax styling? The American public, I am sure, adores its cars; and I have no doubt that if it could, it would style its aircraft in the same way. After all the U.S. Air Force either spends, or allows to be spent, a great deal of money on the two-dimensional and entirely meritorious decoration of *its* aircraft. This proves surely a complete lack of appreciation of the inherent beauty of shape for speed. By the way, have you seen the new French Caravelle, it makes the Comet look like a string bag.

ABNER

NEWS

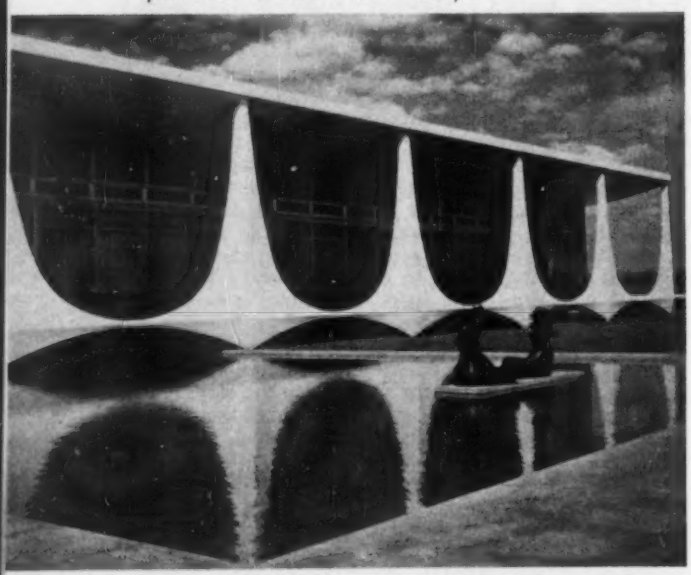


The Skyway Hotel, adjacent to London Airport, on which a "topping-out" ceremony was held recently. Architects: Fitzroy, Robinson and Partners



The Punshon Memorial Methodist Church, Bournemouth, which was awarded the R.I.B.A. Architectural Bronze Medal, 1958, for the Hampshire and Isle of Wight area. Architect: Ronald Hubert Sims

The Palace of Dawn residence in Brazilia, for the President of Brazil. Architect: Oscar Niemeyer



Scottish Building Regulations

A Building Standards Advisory Committee has been appointed by Mr. John S. Maclay, Secretary of State for Scotland, to advise him on the building regulations which, under the Building (Scotland) Act, 1959, will replace existing building by-laws in Scotland. The appointment of the Committee was envisaged in the Guest Report which described the Scottish building code as "confusing, restrictive and archaic". The Committee, under the chairmanship of Mr. Craig Mitchell, C.B., will remain in being after the regulations are made, to report on their wording and to carry out a number of other associated functions.

Grants for Historic Buildings

The Minister of Works has announced another 31 grants towards the preservation of historic buildings. Seven of these are in Scotland, two in Wales, and the remaining 22 in England.

The grants are authorized under an Act of Parliament of 1953, which set up Historic Buildings Councils in the three countries to make recommendations to the Minister.

Country houses are prominent in this quarter's list, but it includes also four castles, three town halls, and several educational establishments. Groups of old houses in Dunblane and Kirkcaldy receive grants, and No. 8 High Street becomes the fifth building favoured in Chipping Norton. A range of almshouses in Leicestershire and the headquarters of the National Book League, off Piccadilly, are also in the list. The grant to the National Trust for General Wolfe's boyhood home at Westerham coincides with the bicentenary of his victory and death at Quebec. Other grants go to a Chinese bridge across the Ouse at Huntingdon and for repair of furniture at the great Kentish house of Knole.

A condition attached to every grant is that the public shall be given reasonable opportunity to view the building.

Since their formation the councils have considered 2,892 applications for aid, and the number of buildings for which grants have been accepted totals 650, the aggregate value being about £2¼ million.

The current list comprises:

England

Ravenstone Hospital Almshouses, Ravenstone, Leicestershire; Salisbury Hall, Shenley, Hertfordshire; Lockleys, Welwyn, Hertfordshire; Chinese Bridge, Godmanchester, Huntingdonshire; 7 Albemarle Street, London, W.1; Chilham Castle, Chilham, Kent; Furniture at Knole, Sevenoaks, Kent; Quebec House, Westerham, Kent; Crossways, Abinger Hammer, nr. Dorking, Surrey; Town Hall, Wallingford, Berkshire; Bridgefoot, Iver, Buckinghamshire; Milton Abbey School, Milton Abbas, Dorset; 8 High Street, Chipping Norton, Oxfordshire; Hope House, Woodstock, Oxfordshire; Trewithen, Probus, Cornwall; Sydenham, Marystow, nr. Tavistock, Devonshire; Town Hall, Okehampton, Devonshire; Taunton Castle, Taunton, Somerset; Pyt House, Tisbury, Wiltshire; Wardour (New) Castle, Tisbury, Wiltshire; Guildhall, Aston Cantlow, Warwickshire; Dorfold Hall, Nantwich, Cheshire.

Wales

St. David's College, Lampeter, Cardiganshire; Y Gangell, Conwyl Elfed, Carmarthenshire.

Scotland

Bonshaw Tower, Annan, Dumfriesshire; Muchalls Castle, Stonehaven, Kincardineshire; Newliston, West Linton, Peeblesshire; Old Houses, Kirk Street, Dunblane, Perthshire; Prestonfield House, Edinburgh; The Binns, West Lothian; Sailor's Walk, Kirkcaldy, Fife.

Preservation of the Dorset Countryside

The beauty of 400 square miles of Dorset countryside is to be protected through the confirmation by the Minister of Housing and Local Government of an order made by the National Parks Commission. The area includes most of the Dorset coast and extends inland for about 12 miles west of Dorchester. The stretch of coast includes Golden Cap, near Bridport, which is about 618ft in height; Chesil Beach with, just inland, Abbotsbury and its swannery; Lulworth Cove and the bays and headlands of Purbeck. Inland there are the downs, heaths and wooded valleys of the Hardy country.

The order, issued under the National Parks and Access to the Countryside Act, 1949, designates this part of Dorset as an "Area of Outstanding Natural Beauty" and not as a National Park.

The responsibility for preserving and enhancing the natural beauty of the landscape rests with the local planning authority, Dorset County Council. Government grants can be made at the rate of 75 per cent towards the cost of treating derelict land, tree planting and preservation and removing disfigurements. Grants are also available towards expenditure incurred in making agreements or orders for public access to open country and in appointing wardens. Designation does not provide any right of access to land not already open to the public. Nor does it affect the existing use of land, e.g., the use of War Department land for military purposes.

Visitors to the area are asked to follow the maxims of the Country Code and, in particular, to help preserve the beauty of the countryside by being careful not to leave litter.

Housing in Central London

The L.C.C. policy of July, 1957, for restricting new office development in the central zone of London, and encouraging residential and certain other kinds of development tending to reduce congestion in this zone is to be strengthened. The council will introduce at the review of the development plan in March, 1960, a new land use category in the zone. Developers would then be required to satisfy the council that any new proposed office development was appropriate to the zone.

Car Parking Standards in London

The minimum standard for car parking in respect of new offices and showrooms in London has been increased from one car space per 2,500 square feet of gross floor space to one per 2,000 square feet. The Town Planning Committee state that since July, 1957, there has been no difficulty in achieving the existing standard in the majority of new offices and showrooms. Indeed many developers are willing to provide car parking facilities exceeding the standard. The City Corporation is being asked to adopt the same new standard.

Chairman: Board of Architectural Education

D. H. Beaty-Pownall has been appointed chairman of the Board of Architectural Education for 1959-60; E.D. Mills is vice-chairman.

F.B.I. Industrial Art Award

This year's F.B.I. Industrial Art Prize has been awarded to Mr. Bernard Holdaway who is studying in the School of Interior Design at the Royal College of Art. The prize is given each year to a final-year student of the Royal College of Art, to spend some weeks abroad before entering industry. Mr. Holdaway intends to study in Brazil, possibly Mexico, and the United States.

Mermaid Gets Gulbenkian Grant

The Mermaid Theatre, Puddle Dock, Blackfriars (see A. & B.N. feature, pp. 818 to 820, June 24, 1959), has received a grant of £5,000 from the Calouste Gulbenkian Foundation, Lisbon.

Cost Control Conference

A further conference on methods of the control of building costs at the design stage is to be held at the Institute of Advanced Architectural Studies at York, from Friday, October 9, until Sunday, October 11, 1959, under the sponsorship of the Cost Research Liaison Committee of the R.I.B.A. and the Royal Institution of Chartered Surveyors. The conference will be on the same lines as the Cost Control Conferences held at Great Missenden and Bristol earlier this year, with many of the original speakers. The conference arrangements are being made jointly by the R.I.B.A. and the York Institute.

Applicants are asked to write to Mr. Anthony Williams, Assistant Secretary, R.I.B.A., 66 Portland Place, London, W.1, stating age, qualifications, experience of cost-control methods, and whether you wish the organizers to book hotel accommodation. Applications should be received by Monday, September 7.

Coming Events

Town and Country Planning Association

September 7, at 6.30 p.m. Planning Forum. "The Ministry's Part in Town and Country Planning," by Dr. Nathaniel Lichfield, B.SC., F.R.I.C.S., A.M.I.MUM.E., M.T.P.I., Regional Planning Officer. At the Planning Centre, 28 King Street, Covent Garden, London, W.C.2.

The Building Surveyors' Institute

September 26. The London and Home Counties Area of the Institute. Visit to Guildford Cathedral, conducted by Mr. Layfield, Senior Architect. 2.45 p.m. at Guildford Cathedral Car Park.

Law and Administration

Improvement Grants

One of the most important objects of the *House Purchase and Housing Act, 1959*, was to introduce a new system of grants for improvements to houses and to simplify and improve the present grant arrangements. The Minister of Housing and Local Government has issued a *Circular 37/59* setting out the details of these new arrangements and providing model forms for use in administration of the Act.

The Circular contains a lengthy memorandum which deals, first of all, with the new *standard grants*. These new grants are payable when certain specified *standard amenities* are installed in a house. These five standard amenities are set out in Section 4 and they are:

(a) A fixed bath or shower in a bathroom;
(b) a wash-hand basin;
(c) a hot-water supply;
(d) a w.c. in or next to a dwelling;
(e) satisfactory facilities for storing food.

Furthermore, in order to qualify for a grant, certain requirements *must* be fulfilled, namely:

(i) The dwelling after improvement must have *all* five standard amenities;

(ii) if a hot-water supply has been added by means of the grant it must be connected to a sink and wash-hand basin as well as to a bath or shower;

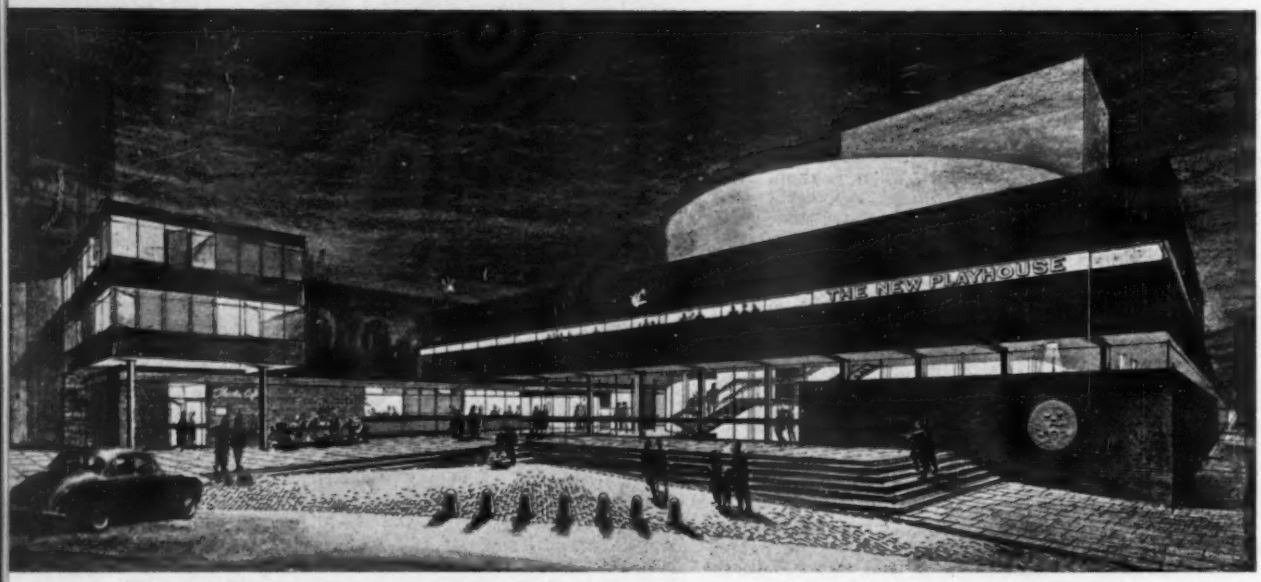
(iii) the standard amenities must be for the exclusive use of the occupants of the dwelling concerned;

(iv) the dwelling in question must have either been built before 1945 or converted before 1959, out of a building built before 1945;

(v) the local authority must be satisfied that when the work has been done the dwelling will be fit for habitation and will remain fit and available for habitation for at least another 15 years;

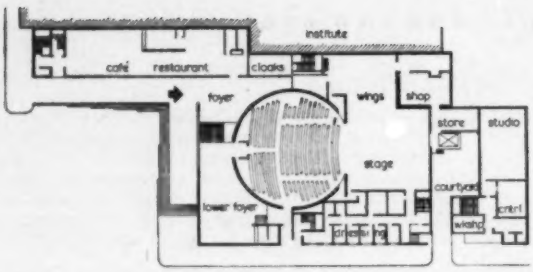
(vi) the local authority must be satisfied the applicant is either the freeholder or the lessee with at least 15 years to run;

Continued on page 104

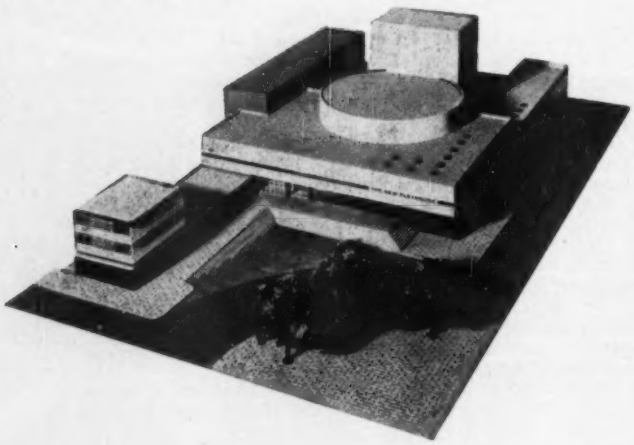


The circular auditorium is made a feature of the architectural composition

THE PLAYHOUSE CIVIC THEATRE, NOTTINGHAM



Above, ground-floor plan showing the stalls-level seating in the auditorium, which are arranged for a "picture frame" production. In the "arena stage" production, the front seats are removed to admit a semi-circular fore-stage. Below, a model of the Theatre



FOLLOWING completion of the Belgrade Theatre, Coventry (illustrated in A. & B.N., 18.6.58), which was the first civic theatre built in Britain since the war, Nottingham City Corporation are proposing to build their own civic theatre, called The Playhouse

The scheme can be divided into three main parts: (1) the theatre itself, consisting of stage, auditorium, foyers, bars and ancilliary accommodation connected with the stage; (2) a projecting wing containing the major portion of the restaurant, café, kitchen, art gallery and a number of actors' flatlets designed as a two-storey block forming the termination of the wing and a buffer between the Albert Hall and theatre; and (3) B.B.C. accommodation which is a self-contained unit comprising studios, and technical rooms, as well as office accommodation.

The auditorium seats 770 people, 520 in the stalls, 250 on the balcony. It is circular in shape and forms the core of the architectural composition. This shape achieves a close actor-audience relationship in both picture-frame productions, as it eliminates bare walls flanking the proscenium opening, and in open-stage productions, when it allows a really dynamic fore-stage to trust itself into the stalls area. By a re-arrangement of the front seating the public can sit on both sides as well as in front of the stage, the cylindrical shape of the auditorium thus enclosing both actors and audience. This should make it possible to produce, for instance, a Shakespeare play very much on the lines of the Elizabethan theatre.

A floating canopy has been designed to suspend over the fore-stage and on to which spots can be fixed to suit such a production. This canopy also incorporates acoustic reflectors and fulfills certain requirements connected with television broadcasts.

The foyers are arranged on varying levels around the cylindrical auditorium and are so disposed that the entrance foyer is at a level between the stalls and the balcony. By this arrangement it is possible to reach one's seat with the minimum of stair climbing: a short flight down to the stalls or a short flight up to the balcony.

The estimated cost for the entire project is in the region of £300,000. Architect: Peter Moro.

John Meets a Fellow Q.S. *by ANARISC*

Draught or Bottled

THE man with the red face stood at the bar within easy reach of his pint of draught Guinness. He was a big man, about forty years of age, with wild greying hair, a nose to match his ruddy cheeks and large well-worn hands. He wore a green tweed suit and from the breast pocket of his jacket stuck the top half inch of one of those 6in ivory rules that sub-contractors give you—offer you—at Christmastime. He was standing alone and smoking a cigarette but he looked around challengingly every few moments as people sometimes do in pubs who are spoiling for a conversation.

The man who entered was of medium height, dark, quiet-looking, clean shaven, impeccably dressed, impeccably ordinary. He too was about forty. He ordered a bottled beer, hoisted himself upon a high stool next to the aggressive looking man, lit a cigarette from a silver lighter, and frowned at the row of bottles behind the barmaid's shoulder. It would have been impossible to read his thoughts because he was a quantity surveyor, but they went something like this. "I've now fixed and glazed and painted the windows and I've made a start on the openings. If I can finish the remaining openings by tomorrow night I shall be able to begin the doors at home over the week-end. Mary's not going to like that. But I haven't got a door schedule yet so I must ring him tomorrow first thing and get one sent along, if he's got one . . . if he's doing one . . . which he probably isn't because he told me only today that the client expects to see a hut on the site on Monday week. What a damned stupid way of earning a living."

Before he had time to draw a gun on himself the wild-looking man spoke.

"Good stuff, that," he said, pointing with the fist that held the pint towards the newcomer's beer. Used to use it myself until I changed to a man's drink. He spoke brusquely, even belligerently, with a powerful Yorkshire accent. Most people would have taken offence at such an attitude from a stranger but the ordinary looking man, accustomed to being shouted at in every dialect from Western Highlands to forced Oxford, merely nodded.

"You look as if you've had a busy day" went on the red-faced man.

"I usually have busy days."

"What's your job then?"

"You won't have heard of it. I'm a quantity surveyor."

"Won't have heard of it, be damned! I'm one myself, with a builder, mind you. I can see you are with a private firm, you haven't a scale in your top pocket."

"Very observant of you. May I ask your name?"

"Grimwood. Arthur Grimwood. Chief Regional Surveyor and Estimator for Bullbuild Ltd."

"Bullbuild, eh? I've heard of Bullbuild."

"I hope you have. Yes, although I say it myself I'm in charge of all the surveying and estimating in our provincial offices—Carlisle, Nottingham, Bristol . . ."

"Surely Bullbuild are the people who made a name for themselves by opening in the provinces soon after the war and subsidizing their offices there by profits made in the Middle East. To get yourselves established in Carlisle, Nottingham and Bristol you cut your prices so that any local contractor, who seriously tried to compete with you, went through the hoop. Am I right, old boy?"

Now to say "old boy" to somebody who speaks with a Yorkshire accent is a sure way to annoy him. The quantity surveyor knew this (or he would not have said it) so he was expecting an outraged reply. He was not disappointed.

"Just you wait a minute, son. Bullbuild never made any thing but a fair profit on any job. Only the other day Sir Alfred Taurus, our managing director, said in his annual report: 'Bullbuild is straight. Bullbuild is all craft' We build straight and we measure straight, my boy, always have done, always will do." He paused before he added, tapping his large head, "The only way to make money at our game is to use your nouse. You need the weight at the right end to be a good builder's surveyor. There's no money in a slack tape, you know, whether it's in Bath, Barnsley or Baghdad."

"I'm not interested in what you say about fair prices and slack tapes, I'm saying that you have been able to establish new offices only by cutting rates."

"What's wrong with that? The corporations must like us or they wouldn't invite us to tender."

"But by inviting you to tender they force local builders to cut their rates and if they are to stay in business they must cut their workmanship to suit. Hence a decline in craftsmanship. Correct?"

"Not in Bullbuild's craftsmanship. We pay all our craftsmen over the rate and they give a good job. Next time you're in Harrogate—"

"I never go to Harrogate. I maintain you people are damaging the building industry in the provinces. Thank God you won't last."

"Won't last!"

"Of course you won't. These '3d off' offers are only temporary. You cut rates for a few years to get work, soon prices must find their right level again and the local contractors will get back in. Then craftsmanship will return. A man always works better for the firm his father worked for than for an octopus crowd controlled from a head office with fitted carpets in the West End."

"Don't talk daft" (and he said daft, not darft). "Let me buy you a drink and you may see sense." He ordered "same again, luv", and continued.

"All right, you say we are damaging the building industry. Now what are you, as a quantity surveyor, doing to help it?"

"What I can, which isn't much."

"Such as?"

"I'm trying to work out some way to help the architect plan a job without over-spending."

"You've been doing that for years."

"Yes, because it has to be spare-time work. I get no chance to do it in the office because of you builders."

"Builders! You mean architects."

"I mean builders. You've heard of the 'Standard Method of Measurement'?"

"Of course."

"That was written by builders."

"On the contrary, it was prepared by a joint com-

Draught or Bottled

mittee representing the R.I.C.S. and the N.F.B.T.E."

"Look, quantity surveyors came into existence to help builders, to give them an equal footing to tender on. Basically, we are your clients, so we must do what you say. If you want labour plumbing to quoin measured we can protest, but we must agree. That is why we have come to spend so much time preparing bills of quantities and so little being useful to architects—and, incidentally, to builders who are having to wait for their final accounts. Only when you builders stop being so obstructive shall we be able to streamline the paper work side of building."

"We've heard all about this streamlining the quantities for years, but it just won't work. We might make a few modifications to the Standard Method, but basically, it can't change."

"Nonsense. Take the bricklayer. You could cut that down to a few pages of bill by making prices include all labours. You could cut the plastering by measuring all areas superficial, you could dispose of labour on formwork."

"You've obviously never worked for a builder."

"You can't tell me that within a few years a builder couldn't learn to gauge from the drawings—he would have to be sent the principal eight-scale and half-inch drawings with the bill of quantities—a percentage addition to brickwork and plastering and formwork prices to cover labour and narrow widths if they were not measured out. Of course he could. He's just loathe to take a risk, that's why he wants no change. Say what you like, but until the Standard Method of Measurement changes radically there will be no speed-up of final accounts, no increase in tendering time for contractors, no up-to-date cost information service for architects and, incidentally, many more dissatisfied clients who are being drawn into the arms of the big builders with their package deals."

"I presume you mean what we Bullbuild Ltd. call the comprehensive service. And what might be wrong with that?"

"Let's leave that for another time, shall we? Now let me buy you a drink."

"No, I must be off, thank you. I've got a bill to price before Monday. I usually do them at home when the wife's gone to bed. The quietest three hours of the twenty-four—midnight to three a.m."

"I've often thought so myself, although I usually start about eleven and go on until three-thirty," said the quantity surveyor slipping casually off his stool. "I hope we may meet again one day."

"So do I. Tell you what. There's a new edition of the Standard Method coming out soon. I'll meet you in here the first Saturday night after it's published and we'll see if we can't work up an argument about it."

"That's a deal," said the quantity surveyor, smiling for the first time and adjusting his Windsor knot.

"Shake on it," said the red-faced man, like the *Boys' Own Paper* hero. And they did.

Law and Administration

Continued from page 101

(vii) the grant must be applied for and the work approved by the local authority before the work is begun and the work completed to their satisfaction.

The new grants are payable as *of right* if the essential conditions are satisfied, that is to say they are not a matter of discretion for the local authority as are the present grants. The amount payable is up to one-half of the cost *actually incurred* subject to a maximum of £155. The maximum is only payable where *all* five standard amenities are being provided. If the house already has some of the standard amenities then the maximum allowable is obtained by deducting from £155 a specified amount for each amenity already existing.

If the dwelling has	*then deduct*
Bath or shower in a bathroom	£25
A wash-hand basin	£5
Hot water supply	£75
W.C. in or next to the house	£40
Satisfactory food-store	£10

But it is important to note that it is quite *immaterial* how much of the expenditure incurred in the work was spent on providing each of the amenities needed. The grant is calculated on the *total* cost.

The work which is eligible for grant includes ancillary work necessary to achieve the improvement. "The test" the Ministry state "to be applied in considering whether expenditure on any particular work is eligible for grant is whether it would in all the circumstances have been reasonably practicable to equip the dwelling with the amenities it lacked without carrying out that work."

Applications should be made to the local authority; they need not be made on or in any particular form, but must

(a) specify the dwelling concerned and the works to be carried out;

(b) unless all five standard amenities are being installed, state that the dwelling concerned is equipped with those of the five amenities not now being installed;

(c) state that the applicant is the occupier of the dwelling or that the occupier has consented in writing to the making of the application.

The applicant is *not* obliged to produce plans and as the grant is payable on the *actual* cost incurred and not on estimated costs, estimates are not required either.

The Act also seeks to improve the arrangements by making the present *discretionary* improvement grants by altering the conditions on which they are made in the hope that they will become more attractive thereby. These changes affect *both* the *discretionary* and the *standard* grants. The new conditions of grant are as follows:

(a) Once *three* years have passed from the making of the grant the owner of an improved house will be able to dispose of his interest to anyone who wants the house for his *own* occupation or of a member of his family and no liability will then arise to repay the grant;

(b) in future an applicant for any kind of improvement grant, if the dwelling concerned is not already subject to a controlled tenancy, may include in his application a request to the local authority to fix a rent higher than that of an equivalent controlled tenancy of similar premises. Any such higher rent is to be fixed on the assumption that the lessee is to be responsible for internal decorative repairs and that the landlord for all other repairs and that no services or furniture will be provided;

(c) the local authority's agreement will *not* be required before an owner can free a dwelling which has been improved with a grant from the conditions resulting by repaying a proportion of the grant with compound interest;

(d) the period during which the remaining conditions normally attaching to a grant are to be observed is now limited to *ten* years beginning on the day the dwelling becomes available for occupation after the improvements have been done.

The Ministry are providing local authorities with free leaflets entitled, *Improve your House with a Grant*, for distribution to the public, and an official booklet, *New Grants for Better Homes*, is available for 1s 6d. The Minister in his Circular urges "local authorities to do everything in their power to make the new arrangements known, to help inquirers with their problems and to deal speedily and sympathetically with applications".



The three main elements, communal block, classroom, and practical, seen from the site entrance

WESTGATE SCHOOL, SLOUGH

Buckinghamshire County Architect: F. B. POOLEY
Deputy County Architect: J. C. BARKER
Assistant County Architect: A. E. SMITH
Architect in Charge: P. A. T. RICHARDSON

IN the design of Westgate Secondary Modern School, the architects have made full use of an articulated plan to bring together a variety of architectural forms into one composition. There are three main blocks, communal, practical and classroom, of which the latter is the dominant element. The articulated plan form ensures least noise transference between hall, gymnasium and practical rooms; allows easy extension of the classroom block; and enables the hall to be used for evening functions without access being needed through other parts of the school.

Planning

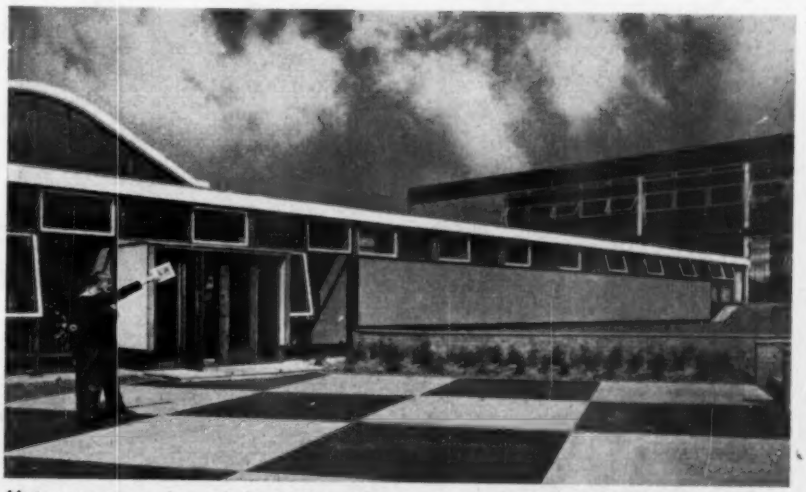
Changing rooms, in the communal block, are planned for easy access to playgrounds, playing fields, assembly hall, gymnasium and stage. A sliding partition divides the dining room and assembly hall, allowing these two spaces to be used together. Additional dining space can be provided in the entrance hall which contains a draught lobby to permit this.

The classroom block is economically planned on a north-south axis with a central corridor on the ground floor. This is lit through cloakroom spaces and staircase halls, thus allowing all classrooms to receive sunlight during some part of the day.

The practical block is a single-storey building. A covered way separates the woodwork and metalwork rooms from the classroom block.

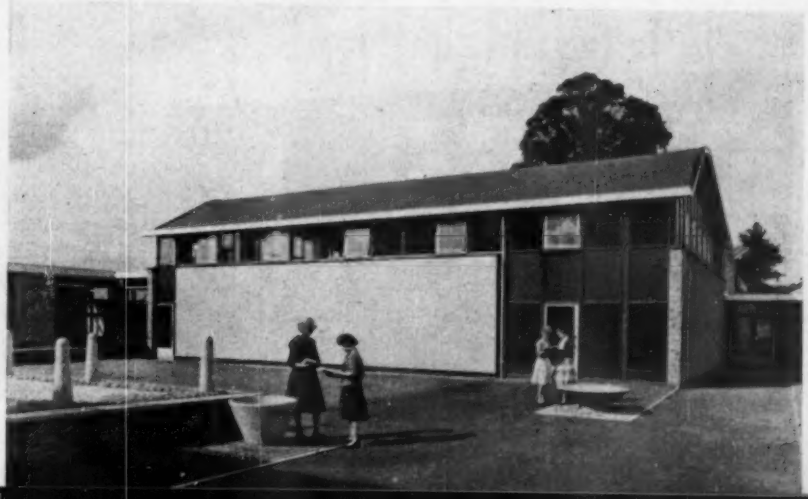
Construction

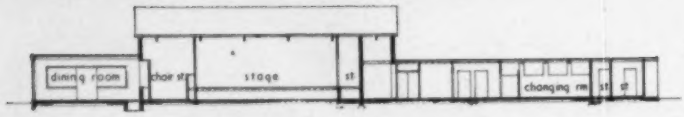
The curved roofs over the main spaces in the communal block are constructed of large curved laminated timber beams, carried on tapered



Main entrance and paved chequerboard forecourt. The elongated administration wing provides a tenuous link between the communal block and dominant classroom block

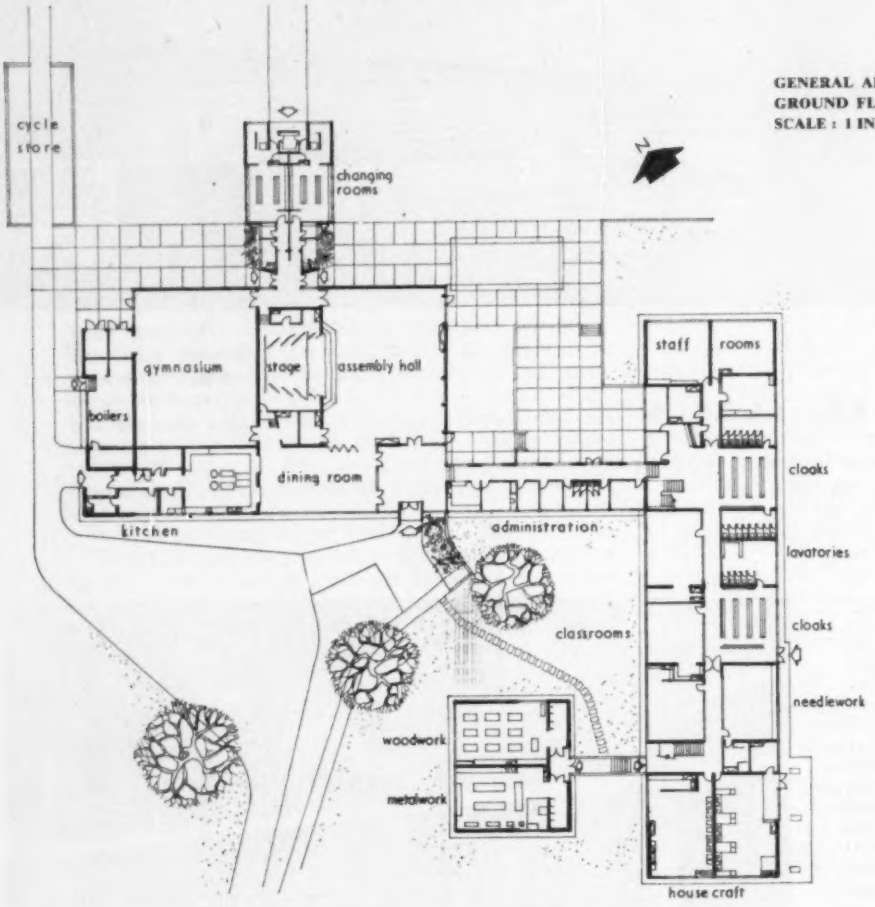
The assembly hall side of the communal block. The various blocks are articulated around paved courts and play areas



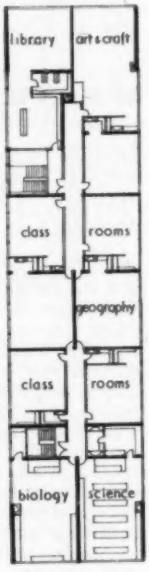


SECTION THROUGH COMMUNAL BLOCK

GENERAL ARRANGEMENT
GROUND FLOOR
SCALE : 1 IN=64 FT



FIRST-FLOOR CLASSROOMS

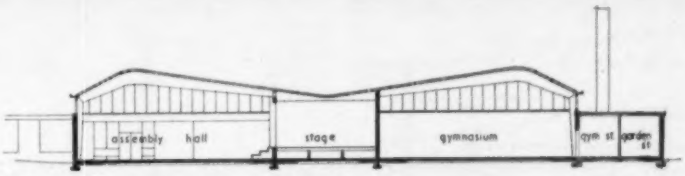




Spacious volume of the main hall, produced by the arched laminated timber roof beams. Considerable attention was paid to acoustics. Walls are faced in beech "Danish panelling". The dining hall and entrance lobby beyond, may all be linked

THE ARCHITECT and Building News,
2 September 1959

WESTGATE SCHOOL SLOUGH



laminated timber posts at 10ft centres. Roofing consists of felt on insulation board on plywood, supported by timber joists.

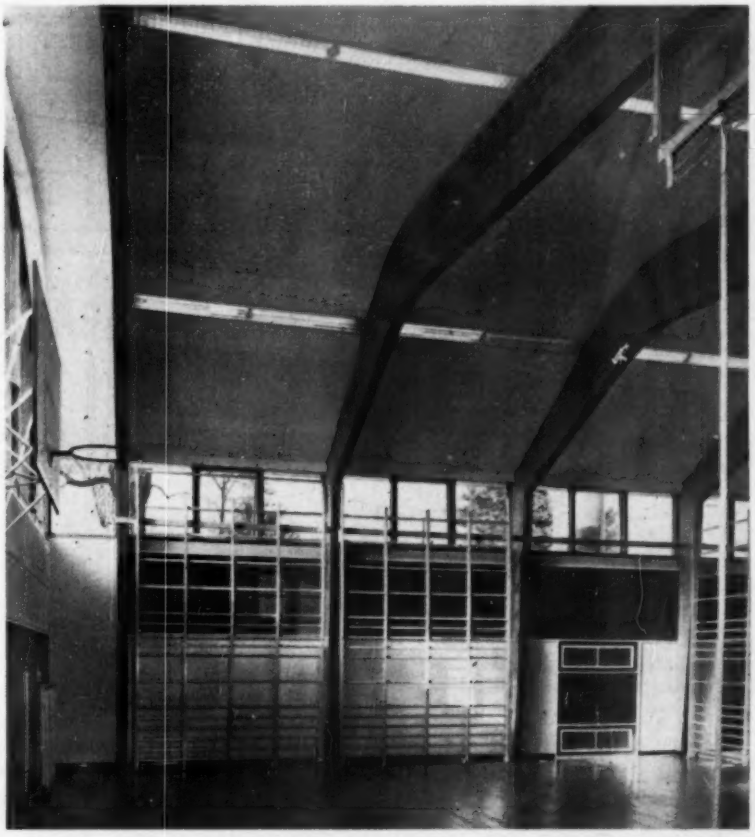
Internally, perforated form board has been partly used on the ceilings, wood wool slabs on the walls of the gymnasium and polished beech "Danish panelling" on the walls of the assembly hall.

Glued timber trusses, 2ft 9in deep, form the roof construction in the classroom and practical blocks. These support joists which carry wood wool slabs, covered with felt. Walls, load bearing brick, faced externally with London Stocks or with white glazed bricks where cross walls are expressed. Floors, prestressed concrete, spanning between cross walls.

Window units in afrormosia, 5ft 9in wide, are linked together to span between the cross walls. Opening lights are in steel and coloured panels are in "Medino" board and "Durasteel".

Black "Eternit" has been used to face the deep timber trusses and timber columns externally.

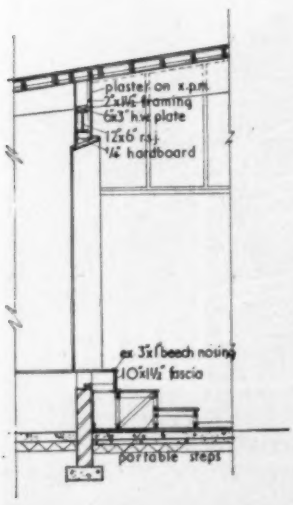
Flooring in the entrance hall and dining room is Canadian Maple; main hall, Missanda; gymnasium, Gurjun.



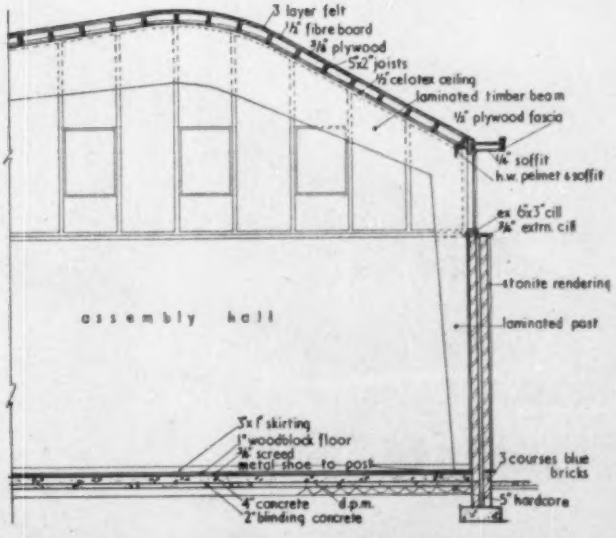
The gymnasium has recessed trough lighting

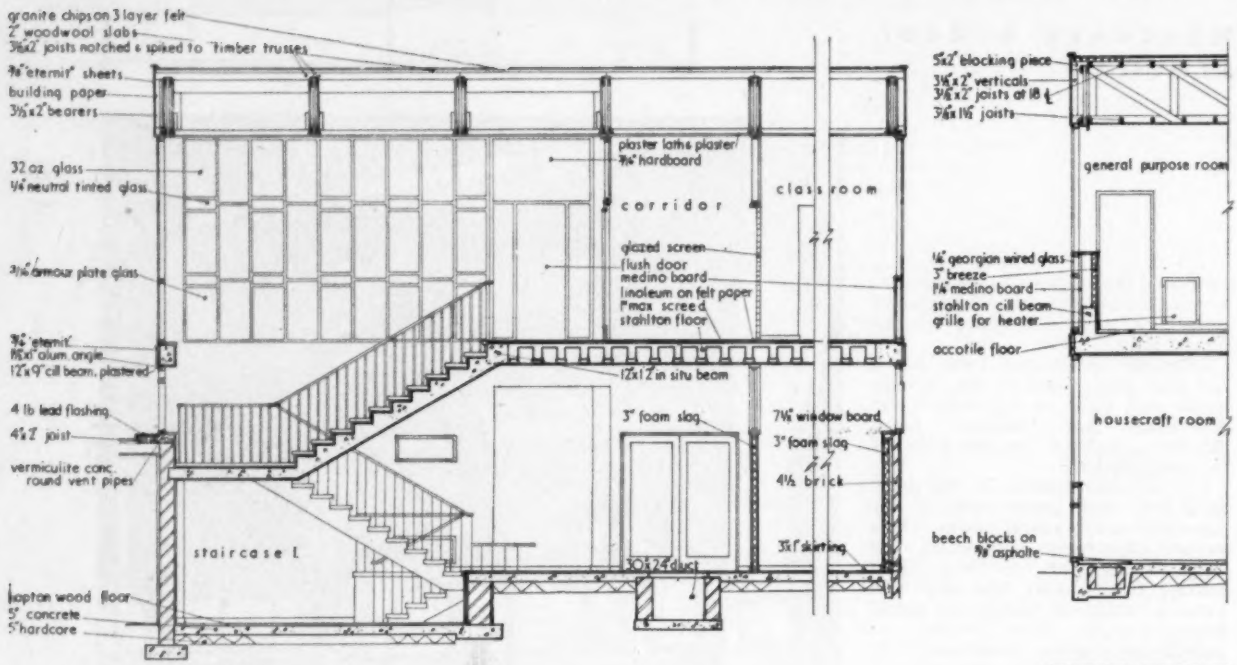
General Contractors: **J. M. JONES & SONS LTD.**

Sub-contractors and suppliers:
Accotile Thermoplastic Tiling: S. H. Ware Ltd. *Acoustic Wall Tiles:* Merchant Trading Co. Ltd. *"Alufloor":* Bennetts Wood Flooring Co. Ltd. *Built-in Furniture, Cloakroom Fittings and Laboratory Fittings:* J. M. Jones & Sons Ltd. *Curtain Track:* Silent Gliss Ltd. *Durasteel Panels:* Durasteel Ltd. *Electrical Installation:* D. A. Dealey (Electrical) Ltd. *"Eternit" Fascia:* G. R. Speaker & Co. Ltd. *Felt Roofing:* Prater Asphalte Co. Ltd. *Fencing:* Astolat Co. Ltd. *Floor and Wall Tiling:* Payne & Baker Ltd. *Glazing:* Faulkner, Green & Co. Ltd. *"Granwood" Flooring:* Granwood Flooring Co. Ltd. *Gymnasium Equipment:* H. Hurst & Co. Ltd. *Heating and Hot Water Installation:* Engineering Services Installation. *Ironmongery:* Parker, Winder & Achurch Ltd. *Laminated Timber Beams and Posts:* Kingston Ltd. *Linoleum Flooring:* S. H. Ware Ltd. *Medino Board Panels:* Saro Laminated Wood Products Ltd. *Metal Windows:* Crittall Manufacturing Co. Ltd. *Motorized Roof Extractors:* Fenton Byron & Co. Ltd. *Opening Gear to Windows:* Teleflex Products Ltd. *Paving Slabs, Flower Pots:* Mono Concrete Products Ltd. *Perspex Rooflights:* Wm. J. Cox Ltd. *Roof Ventilators:* Greenwood & Airvac Ventilating Co. Ltd. *Sanitary Fittings:* Adamsez Ltd. *Stage Curtain Equipment:* Furze & Co. (London) Ltd. *Stahlton Prestressed Floors:* Costain Concrete Co. Ltd. *Tarmacadam and Asphalt:* Home Counties Tarmacadam Co. Ltd. *Terrazzo Paving and Partitions:* Zanelli (London) Ltd. *Trussed Timber Beams:* Kingston Ltd. *Venetian Blinds:* J. Avery & Co. Ltd. *Wood Block and Strip Flooring:* Hollis Bros.

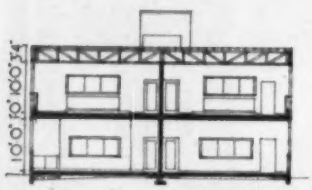


SECTION THROUGH ASSEMBLY HALL
SCALE : 1 IN=8 FT

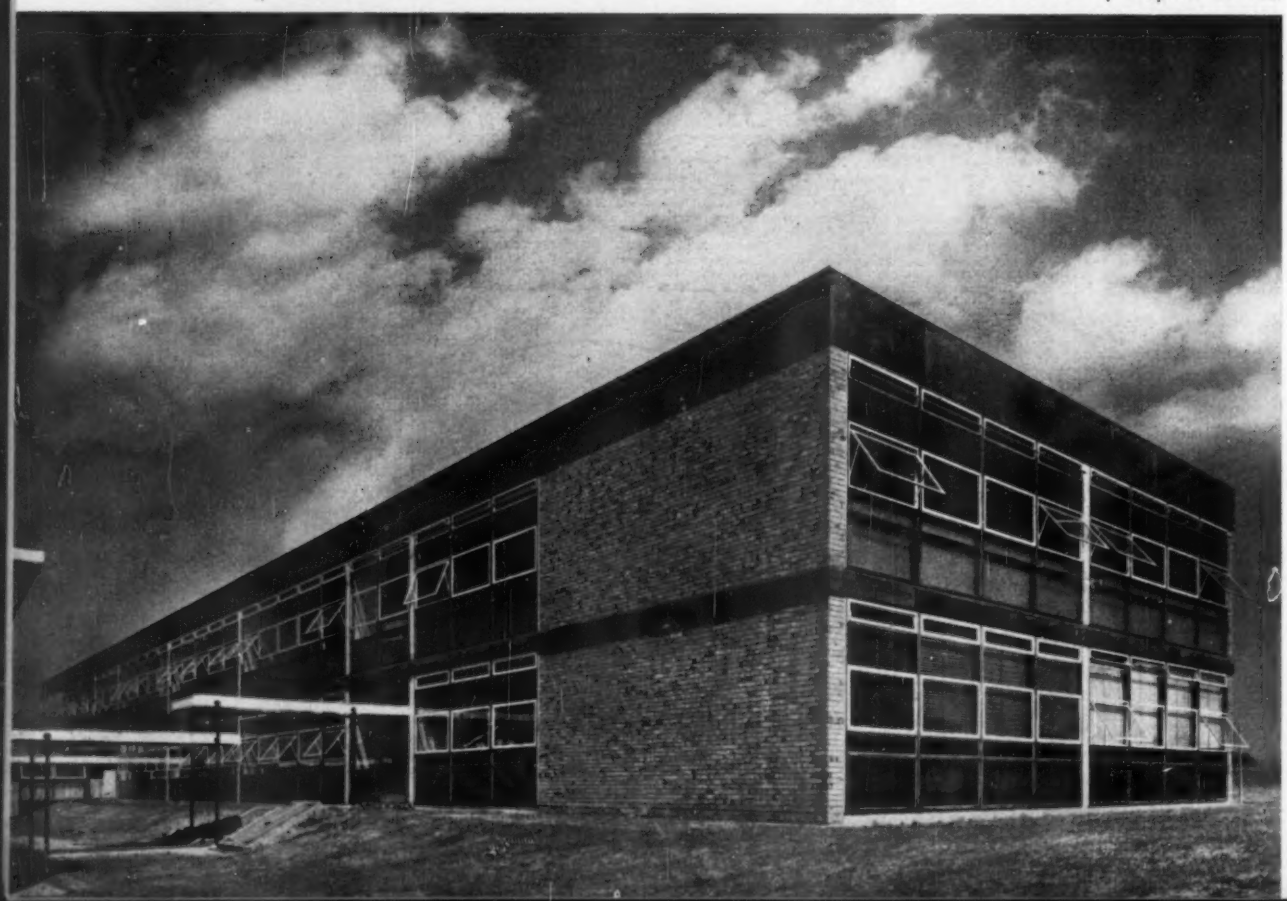




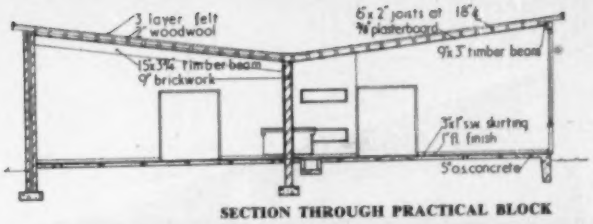
SECTIONS THROUGH CLASSROOM BLOCK
SCALE : 1 IN=8 FT



The classroom block is planned on a north-south axis, with classrooms on each side of a spinal corridor



WESTGATE SCHOOL SLOUGH



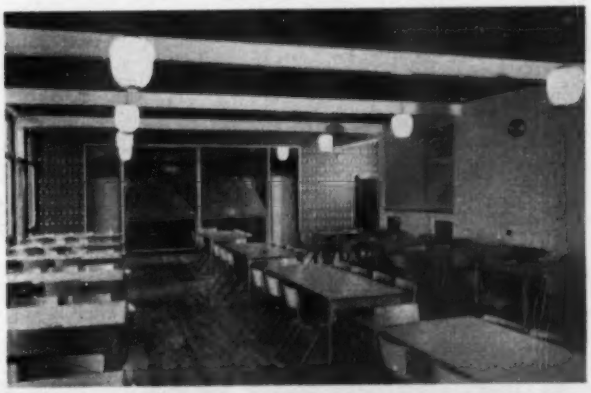
SECTION THROUGH PRACTICAL BLOCK

Lighting

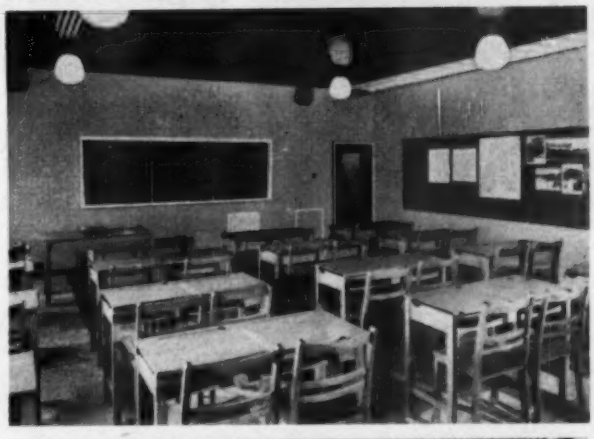
In the gymnasium fluorescent tubing has been recessed into the roof construction between the laminated beams, and screened by egg-crate louvres. Full stage lighting and pendant fittings have been used in the assembly hall.

Costs

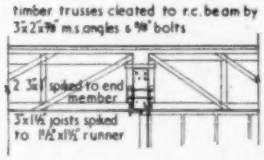
The total gross cost of the school, including preparation of playing-fields, etc., was £141,871. The net cost was £125,871. The gross cost per sq ft was £3 7s 7d.

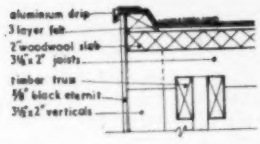


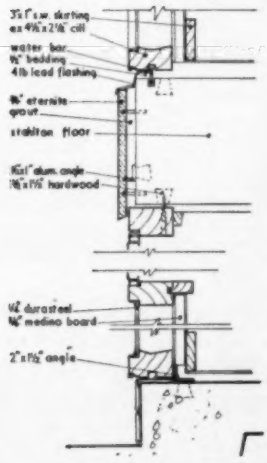
The small hall and dining room



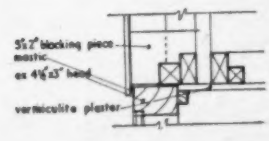
A typical classroom, with polished wood slatted ceiling







EXTERNAL WALL CLASSROOM BLOCK
SCALE : 1 IN=1 FT

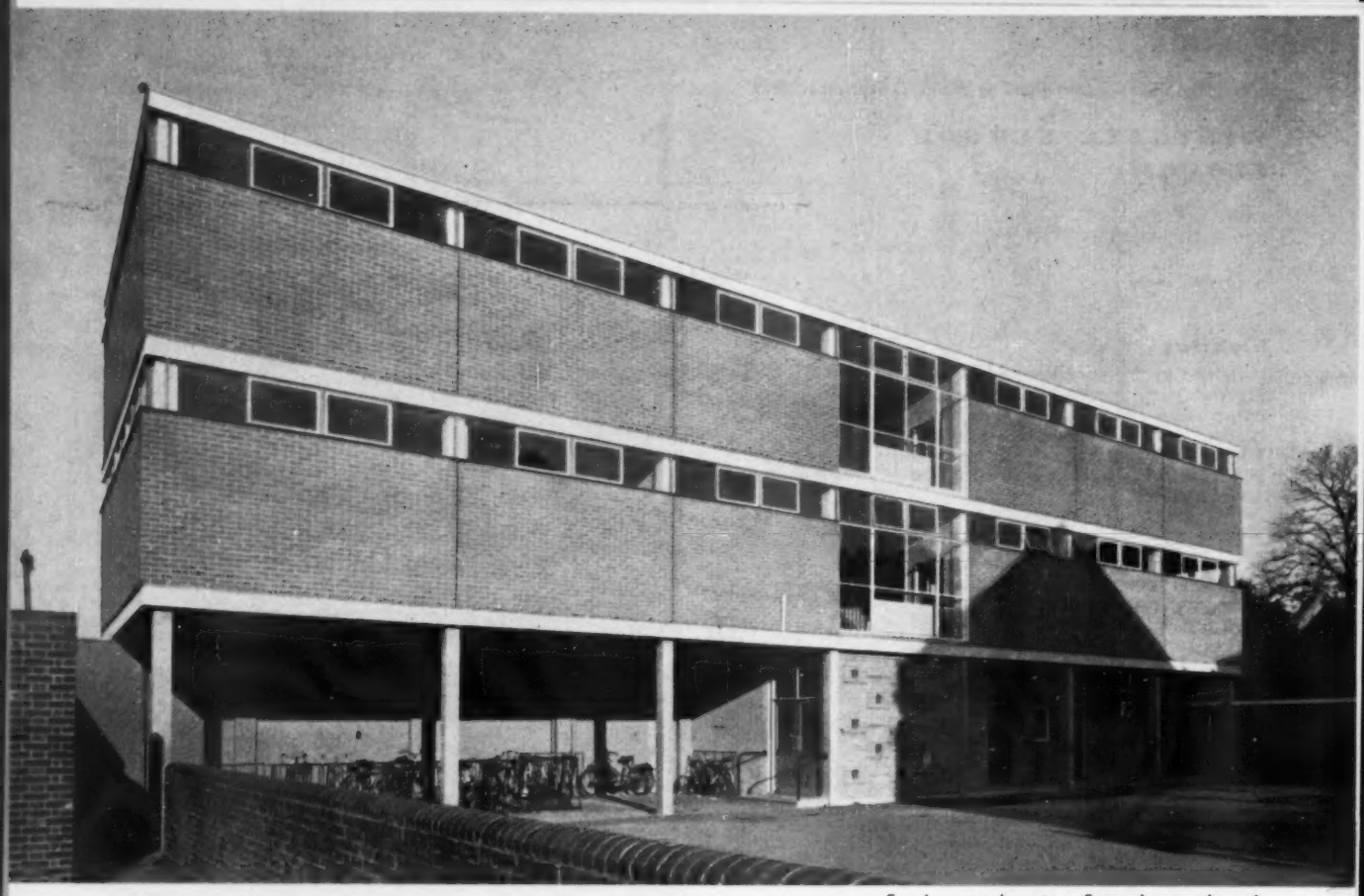




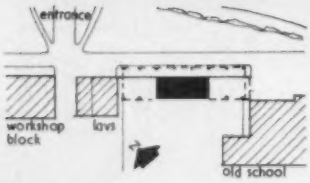
The library, and entrance hall beyond



A science laboratory



South-west elevation, from the quadrangle



NEW SCIENCE BLOCK, KENT COLLEGE

Architect: EDWARD D. MILLS AND PARTNERS
Assistant in charge: PETER MILNE



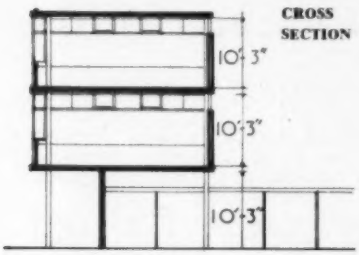
THIS new science block extension to Kent College, Canterbury, consists of two floors of laboratories elevated on free-standing columns. The extra height gained through raising the building improves the massing, as the science block completes a quadrangle formed by existing school buildings to which it is linked by a covered way.

Construction

The structure of the building is an *in situ* reinforced concrete frame, with solid flat-slab floors and roof slab without beams. The floor and roof slabs on the north elevation are cantilevered beyond the columns for the width of the wall benches to simplify passage of services.

External Finishes

Curtain walling on the upper floors on the north elevation is of aluminium with galvanized steel vertically pivoted sashes, and dark green Vitroslab infill panels backed by 4in Thermalite. Upper floors elsewhere have 9½in cavity walls outside column faces, with recessed black mastic vertical joints at column centres. The



external leaf is of 4½in terra-cotta Uxbridge flint bricks and the inner leaf of 3in Thermalite. High-level windows are of galvanized steel with slate cills.

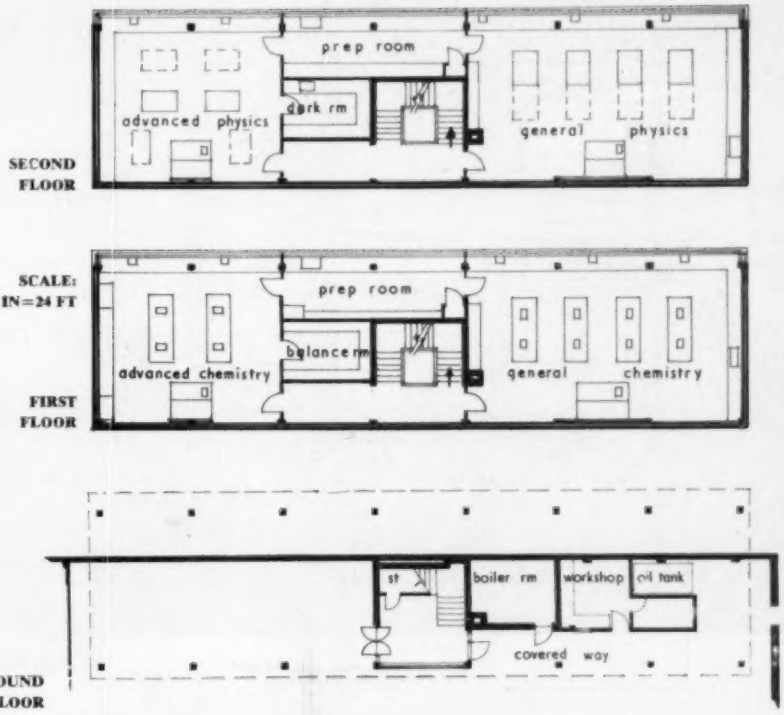
The ground floor is faced with purple Uxbridge flint bricks except for a decorative panel to the staircase which is in contrasting brickwork and glass blocks.

Exposed concrete has been painted with silver grey chlorinated rubber paint.

The roof consists of asphalt with white chippings laid flat on wood wool insulation and screed.

Internal Finishes

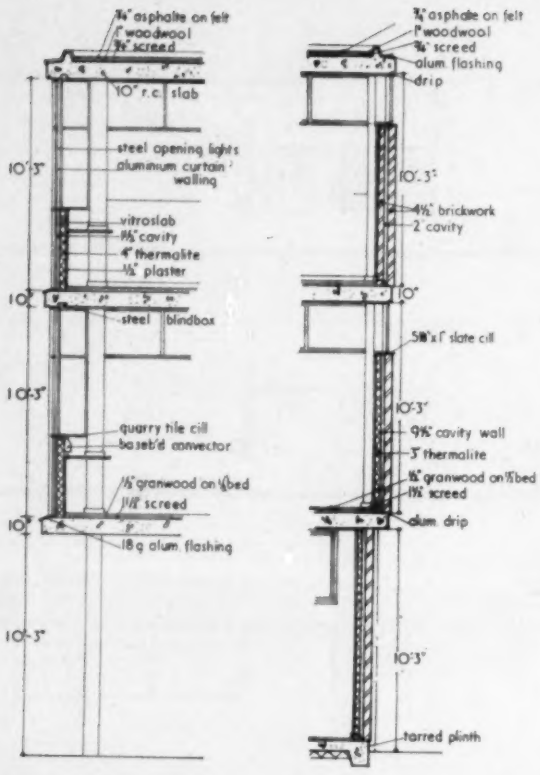
Laboratories have Granwood flooring and skirtings. Walls are plastered, with pressed metal internal angle



Advanced chemistry laboratory



NEW SCIENCE BLOCK, KENT COLLEGE



WALL SECTIONS SCALE: 1 IN=8 FT

trimming at all junctions between blockwork or brickwork partitions and concrete structure. Ceilings are acoustically plastered.

Staircase and entrance: Terrazzo floor and skirting, plastered walls and ceilings.

An oil-fired boiler serves continuous baseboard convectors along backs of wall benches, supplemented by radiators where wall space permits.

The small amount of hot water required in the laboratories is provided by local gas water heaters.

The contract sum was £25,493.

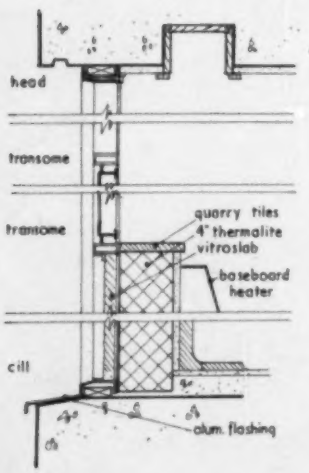
Structural Engineers: OVE ARUP AND PARTNERS
General Contractor: E. G. PITCHER LTD.

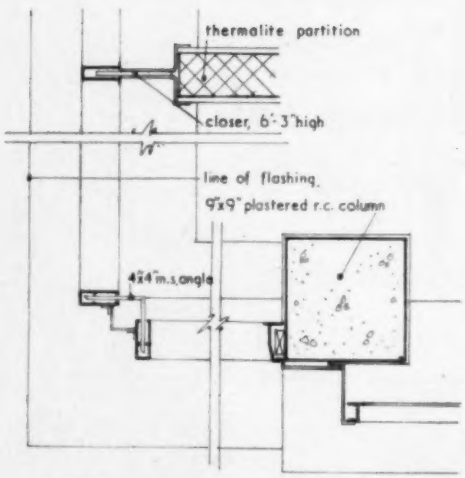
Sub-contractors and suppliers:

Asphalt Roofing: S. & W. Asphalt. *Balustrading:* Thanet-Ware (Kent) Ltd. *Block-out Blinds:* Amey & Son. *Curtain Walling and Metal Windows:* John Williams & Son (Cardiff) Ltd. *Electrical:* Electron Engineering Co. *Gas Installation:* South Eastern Gas Board. *Glass Domelights:* T. & W. Ive Ltd. *Glazing of Vitroslab Panels:* James Clark & Eaton Ltd. *Granwood Flooring:* Granwood Flooring Co. Ltd. *Handrailing:* The Marley Tile Co. Ltd. *Heating:* Tice and Company (Engineering Company). *Ironmongery:* Yannedis & Co. Ltd. *Laboratory Fittings:* Griffin & George Ltd. *Slate Cills:* Bow Slate & Enamel Co. Ltd. *Terrazzo:* Thanet Tiling Co. Uxbridge *Flint Facing Bricks:* Henry J. Greenham Ltd. *Vitroslab Panels:* Plyglass Ltd.

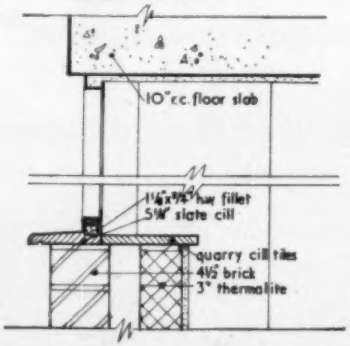


General physics laboratory





EXTERNAL WALL AND WINDOW DETAILS SCALE: 1 IN=1 FT

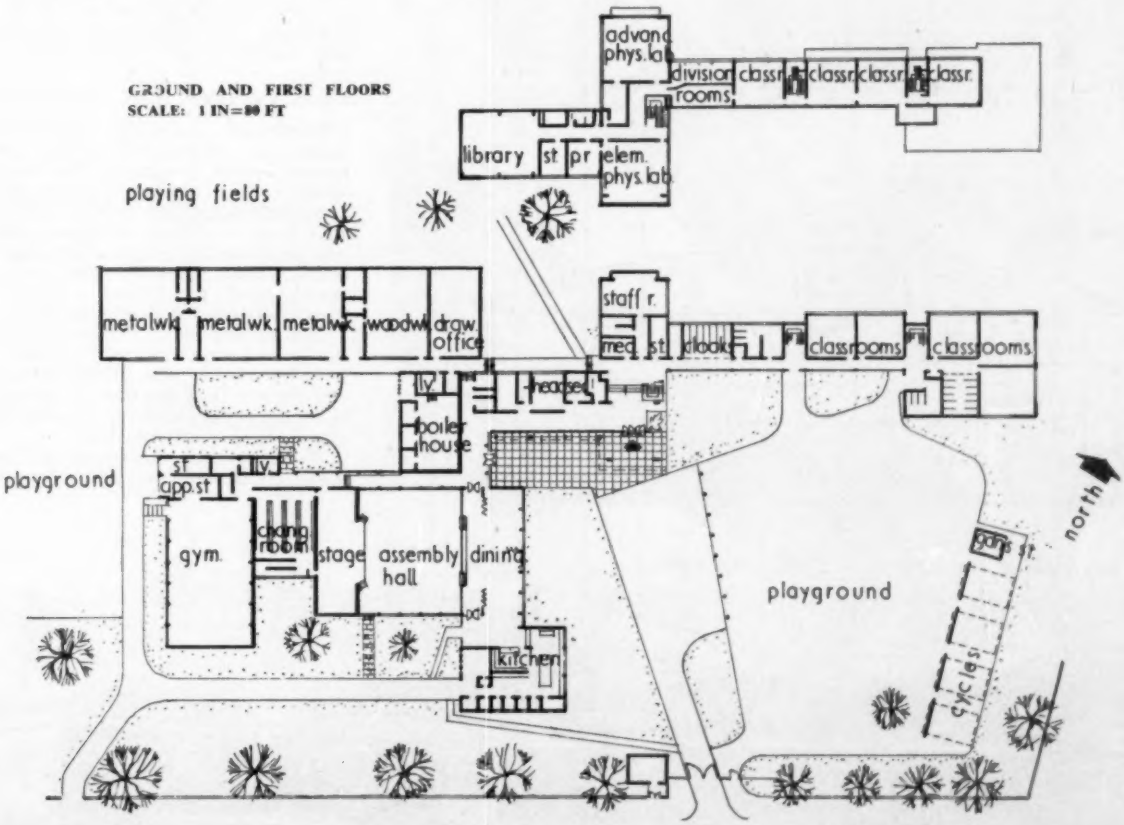


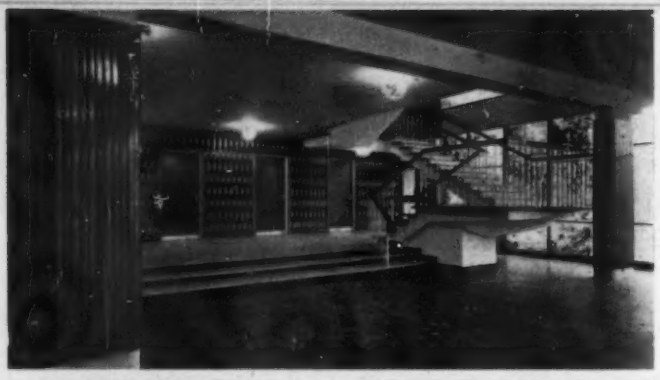


Main entrance, looking towards the classroom block

WEST DERBY SECONDARY TECHNICAL SCHOOL, LIVERPOOL

Architects: HAROLD E. DAVIES AND SON
In association with: RONALD BRADBURY, Liverpool City Architect
Architect in charge: ANTHONY HINCHCLIFFE DAVIES





Entrance hall



Assembly hall

WEST Derby Secondary Technical School is built on an attractive piece of land sloping gently to the south, in a residential suburb of Liverpool. The site borders on the main inner ring road, but is entered from a secondary road, some distance from Queen's Drive junction. The site boundary has a fringe of well-matured trees, most of which have been preserved. The old sandstone rubble boundary wall has also been preserved. The school is designed to accommodate 540 boys on a three-form entry basis with sixth forms.

Planning

The building is planned in four groups: central block, four storeys high, containing administration rooms, laboratories and library; three-storey classroom block; single-storey workshops, assembly hall, kitchen and gymnasium group.

Horizontal circulation in the laboratory and classroom blocks is confined to the ground floor, with vertical access to the teaching rooms via three staircases. This arrangement works well in practice. Floor levels coincide with the site contours.

Lavatories and cloakrooms are in recesses off the main corridor, at ground floor, but small lavatories are provided at convenient points on the upper floors.

In the assembly hall group the small hall is designed to be used alternatively as dining space, two teaching spaces, or as an extension of the large hall. The changing room can be used as a stage dressing room. The whole group can be isolated from the rest of the school for public functions. The large hall is equipped with emergency and stage lighting.

Construction and Finishes

Reinforced concrete framework based on a 40in module, with prestressed plank flooring. The main roofs are *in situ* concrete beams with a plasterboard ceiling below, finished with three layers of bituminous felt and limestone chippings on 2in strawboard. The assembly hall strawboard roof is carried on post-tensioned concrete bowstring trusses.

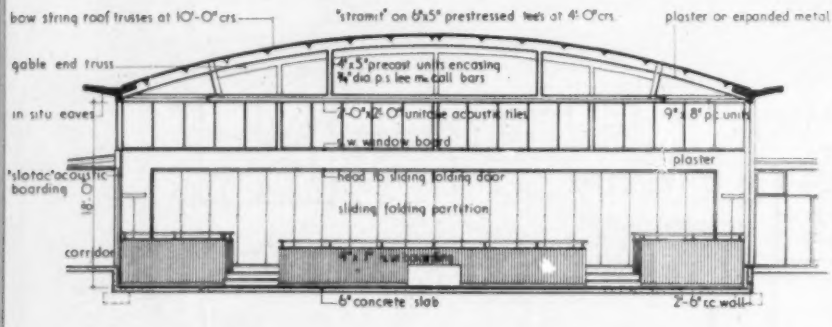
The kitchen has a clerestory roof, of "folded-plate" concrete construction, lined below with 2in wood-wool and $\frac{3}{4}$in vermiculite plaster and granulated cork paint, which successfully guards against condensation.

Workshop wing: load-bearing brick walls; prestressed concrete roof joists.

Quantity Surveyors: LANGDON AND EVERY
General Contractors: R. J. BARTON & SONS LTD.
Sub-contractors and suppliers:

Assembly Hall Curtains: G. B. Kalee. *Blackout and Sun Blinds:* Hurst & Ward. *Concrete Bollards:* Masoncrete Ltd. *Dinorwic Grey Concrete Bricks:* James E. Beard & Co. Ltd. *Electrical Installation:* Winstanley & Barnett. *Electric Light Fittings:* Merchant Adventurers Ltd.; G.E.C. Co. Ltd.; Falk Stadelmann & Co. Ltd. *Electric Still:* Manesty Machines Ltd. *Emergency Lighting and Fire Alarm:* Pritchett & Gold & E.P.S. Co. Ltd. *Forge Flues:* Bowman & Beddows Ltd. *Glazing:* Williams & Watson. *Hardwood Flooring:* Dixon Bros. Ltd. *Heating Installation:* Engineering Service Installation Ltd. *Ironmongery:* Campbell & Mabbs. *Laboratory Tables:* R. A. Stringer & Co. Ltd. *Laboratory Fittings:* E. Taylor & Co. Ltd. *Lettering:* Drakard & Humble Ltd. *Lightning Conductor:* Brunswick Restoration Co. Ltd. *Main Entrance Gates and Railings:* George Lowe & Sons. *Metal Windows and Paten Glazing:* Henry Hope & Sons Ltd. *Metal W.C. Partitions:* Henry Hope & Sons Ltd. *Paints:* Keystone Ltd. *Perspex Domelights:* William Freer Ltd. *Political Globe:* Philip Son & Newphew Ltd. *Roads and Playgrounds:* George Wright Ltd. *Reinforced Concrete and Pre-cast Units:* Trussed Concrete Steel Co. Ltd. *Roller Shutters:* Thornborough & Son Ltd. *Roller Chalk-boards:* Wilson & Gardan Ltd. *Roof Coverings:* William Briggs. *Rustic Facing Bricks:* Ravenhead Brick Co. Ltd. *Sanitary Fittings:* Perrin Hughes & Co. Ltd. *Sliding Partitions:* Esavian Ltd. *Stage Lighting Equipment:* Strand Electric & Engineering Co. Ltd. *Terrazzo Flooring:* The Carrara Marble Co. Ltd. *Thermoplastic and P.V.C. Flooring:* Trinidad Lake Asphalt Ltd. *Ventilating Fans:* Brookes Ventilation Units Ltd. *Vulcathene Wastes:* J. S. & F. Folkard Ltd. *Wallpapers:* William Park. *Wire Mesh Lockers:* Brookes & Co. (1925) Ltd.

SECTION THROUGH ASSEMBLY HALL **SCALE: 1 IN=8 FT**



Two views of the assembly hall block and kitchen wing





WEST DERBY TECHNICAL SCHOOL

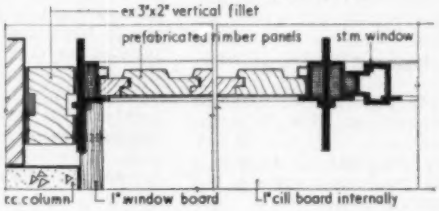
Wall-cladding is designed entirely of standard non-proprietary metal sections, to permit competitive tendering. Infilling panels are western red cedar boarding, backed by 4in clinker blocks, plastered on the inside and painted with a bitumen vapour-barrier on the outer side.

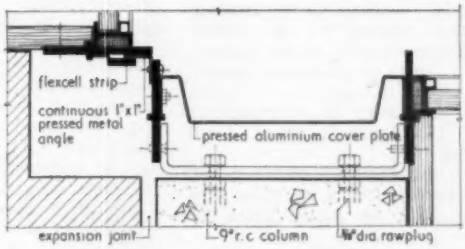
The contract commenced in August 1955, and was completed in October 1957.

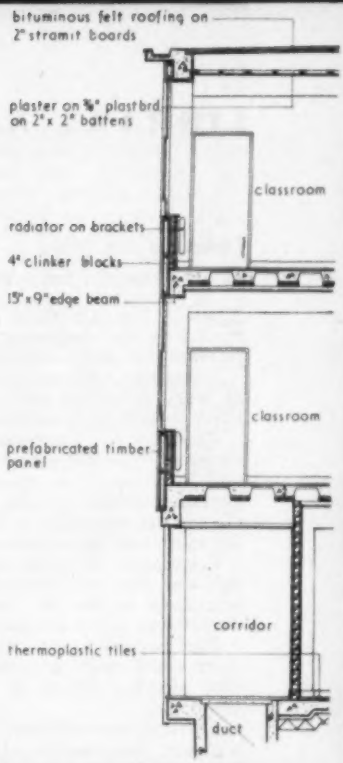
The contract sum was £203,176, including £22,099 for external works, and £6,560 for laboratory furniture.

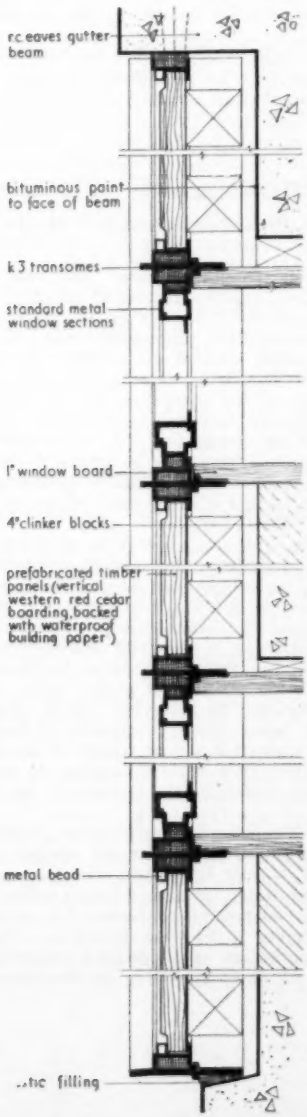
Number of pupils	540
Number of places for cost purposes	612
Floor area	51,942 sq ft
Floor area per place	84·8 „ „
Classrooms	8,191 „ „
Laboratories and workshops	13,449 „ „
Assembly hall, small hall, gymnasium & library	8,394·5 „ „

WALL CLADDING TO CLASSROOMS SCALE: 1 IN=8 FT AND 1/6 F.S.









Curtain wall on the classroom block



LIBRARY NOTES

Leonardo Da Vinci

by Sir Kenneth Clark. Penguin Books Ltd. 6s.

FROM this absorbing study of the Hamlet amongst artists the following points may be thought most relevant for daily contemplation:

Persistence. We are frequently reminded of "Leonardo at work, inventing and rejecting pose after pose in his effort to achieve something compact and full".

Recurrence. Throughout his life Leonardo was obsessed by a few main themes. For instance the Virgin and St. Anne is an example of "contrasted interlocking rhythms within a single shape" where "we are always discovering new felicities of movement and harmony, growing more and more intricate . . . as in an elaborate fugue".

Conceptual Development. The distance is immense between the hard Florentine beginning in Verrocchio's workshop to the St. John. Development comes from continuous internal stocktaking.

Backs-of-envelopes. Vivid, clear drawings of horse and rider could easily go onto a postage stamp (a great pity they don't). Quick to do, quick to grasp, quick to develop.

Clark makes us follow his own rewarding method: first a glance, then analysis of the action (say, right arm raised, body twisted backwards), then references to other works and so on. It is a way of looking for longer than one could usually bear to, and so, of absorbing the plastic meaning of these forms.

The original book, published in 1939 from the material of earlier lectures, sets out to revise previous interpretations of Leonardo for our generation. It still achieves this aim. The illustrations are adequate. Admonished from many sides to distrust "intuition", informed by others that the art of the past is "all bosh", I find reading about grand artists the best tonic. Thanks to Sir Kenneth and to Pelican this dose costs very little.

JAMES CUBITT.

Carolingian and Romanesque Architecture, 800-1200—Pelican History of Art

by Kenneth John Conant. Penguin Books Ltd. 70s.

PROFESSOR CONANT, by his wide and learned experience of Romanesque buildings, has excellent qualifications for writing so comprehensive a book as this; he is especially expert on the important work done at Cluny and Santiago de Compostela. Yet underlying part of this most voluminous study there appears to be a certain confusion of mind between the two styles, both of them alike in exploiting the "Roman" round arch, which the author dubs "Carolingian" and "proto-Romanesque". The latter is said to have started in Lombardy, thus setting "international" Romanesque on its career. One may, indeed, make a clear enough distinction between the domed, yet also round-arched, architecture of the Byzantines and the "basilican" plan which became typical of church, and of some secular, architecture in the West. But within the basilican tradition a division between "Carolingian" and "Romanesque" seems less easy to justify. However much the climate and discipline of the North might modify the churches of Continental Europe in the eighth and ninth centuries it seems better to think of a great continuity expressing itself in various ways in different countries, from about 750 to the early decades of the thirteenth century.

Even in so comprehensive a book, Professor Conant inevitably has more to say on the greater churches than on other aspects of the Romanesque achievement. Secular and military buildings, and most parish churches, get comparatively little space, and more on castles would certainly have been welcome. The scheme of this series, with a separate volume by Professor Webb on *all* English medieval architecture, means that our own "Norman" gets confined by Professor Conant within a very restricted space; there also seems to be less than the subject really justifies on such Tuscan Romanesque as that of Lucca. But the Scandinavian countries, Greenland included, get admirably full treatment. The ground plans are brilliantly helpful, and within his editorial limitations the author has been generous with excellent illustrations. His general plan is to enunciate various principles of Romanesque design, and then to follow their application country by country. He also brings out many valuable points of detail. For instance, the rotunda at St. Benigne in Dijon was a direct precedent for that at St. Augustine's Abbey in Canterbury. The great churches along such pilgrimage routes as that to Compostela made for the spread of "interregional" design, while both Moorish and more completely eastern influences were at work in the earliest pointed arches on the Continent and in the weird multi-domed churches of Aquitaine. Tunnel vaults (as at Cluny) made for good acoustics, and the flanking towers of the Rhineland, Old Sarum, and Exeter occur also on each side of a church at Como. Romanesque lingered longer in Spain than in most countries, and one clear reminiscence of it occurred as late as 1563 on a fountain in Mexico. In the end, the earliest Gothic churches of the Paris region, a district quite separate from Burgundy, where pointed arches were also built, owed much to some of the refinements achieved by the greatest of the French Romanesque designers.

Both in general and in detail a most valuable book.

BRYAN LITTLE.

The Work of the Public Health Engineer

by L. B. Escritt and S. F. Rich. Macdonald & Evans Ltd. 75s.

"THE Work of the Public Health Engineer" as a mammoth treatise on public health engineering generally, containing without doubt a wealth of very sound information of value both to the student and professional man alike. In the foreword to the latest edition, the authors (L. B. Escritt, A.M.I.C.E., and S. F. Rich, O.B.E., LL.B.) remark that since the publication of the second edition in 1949, there has been two reprints comprising virtually the original text, and that recent changes of law and notable advances in technical knowledge make it essential that a new and completely revised edition should be prepared.

Having regard to these factors it is a matter of extreme regret to note in this latest edition a good deal of obsolete material appears, and that in relation to several chapters there are grave omissions. In a work extending to more than 800 pages such defections are unfortunate. The electric sink or garbage grinder, established in the United States since before the war, and now steadily finding converts in this country, shares with the Garchey system of refuse disposal the distinction of having been omitted from the work; yet neither of these facets of public health engineering can be regarded lightly. The public convenience has never been a subject of such importance as it is today, yet it has been allocated something less than three pages, with a total absence of any reference to such anxiety-causing issues as sanitary towel disposal.

The section on public cleansing is woefully out of date and indeed one is surprised that an attempt should be made to deal with such a vast subject in the space of so few pages. One of the most topical and vexed subjects of the day, namely, the composting of household refuse and sewage sludge, receives a five-line reference. The illustrations of refuse collection and cesspool emptying vehicles are sadly out of date, all being representative

of the immediate post-war period; note the small war-time-style headlamps to the vehicles and the out-of-date hose boxes on the cesspool emptying machines. Such illustrations fail to show post-war development and indeed are unfair to both the manufacturer and the reader. In a volume ostensibly rewritten one is surprised to find scant reference to bulk container systems of refuse storage and renewal, more especially having regard to the immense development of flat construction in the post-war years, and, of course, dustless loading of refuse. It is much better to omit a subject from an omnibus work rather than present a poor and inadequate representation.

Then again there are such questions as modern development in oil heating, and even the suggestion of w.c. pans fixed to the wall and not the floor. No single written work could give a comprehensive coverage, but the omissions on this occasion are rather extensive and the reader is left with the impression that the text is not nearly so up to date as is suggested.

These paragraphs may appear to present a severe castigation of the work of the authors on this occasion, but in fact are intended to illustrate how a volume which in other respects provides an abundance of exceptionally useful information has failed to reach the eminence which might so easily have been achieved. It might well be that the omissions are confined to certain chapters, but it has to be remembered that a reader with specialized knowledge of any one subject covered by the book, and finding the text in that particular section far from being up to date, would be strongly inclined to regard the balance of the text with a certain amount of suspicion. The volume does provide a wealth of knowledge on the related subjects, drawn quite clearly from the immense practical background of the authors, which must be of value to the student and the professional man of the "general practitioner" type, and also the local authority official carrying out a multitude of tasks in a small area.

Mr. Escritt's background of engineering experience commands respect and the basic teaching of the book cannot help but be of practical help; by a judicious reading technical and statutory requirements can be co-ordinated in relation to almost any aspect of public health engineering. In this respect the work is to be commended; it is merely regrettable that a volume which costs 75s is in certain respects out of date at the time it is published.

A. G. Davies.

Concrete Practice

by Charles H. Hockley. Chatto & Windus Ltd. 12s 6d.

THE growing feeling in the civil engineering world that the time was coming when concreting should be treated as a skilled site trade was given a fillip by the introduction of the City and Guilds Concrete Practice Courses. This book fills part of the gap in concrete literature which the introduction of these courses made evident. It is based upon the syllabus for these courses and is written at a level to appeal to general foremen and site supervisory staff in the concrete field.

Had the courses remained unaltered, it would have been a valuable text-book for the first-year student, though it would have required supplementing by other reading. Its issue, however, coincides with their revision into separate course, for site and for technically trained staff and, consequently, whilst it was not quite up to the standard for the old first-year course, it fits very adequately the syllabus for the new course for site staff.

It is liberally supplied with clear diagrams and illustrations and is written in simple language with a minimum of technical jargon.

It would be wrong to expect too much of a book of this type but one could wish that more emphasis had been placed by the author upon certain aspects. For example, the difficulties which can occur when high alumina cement is used are very sparingly dealt with and hardly any attention has been paid to concrete additives, with which site staff find themselves frequently in contact. There are also a few minor errors in the text and some lack of clarity. It is unfortunate, for instance, to be told on page 32 that "initial set occurs about 30 minutes after mixing", whilst we are told on page 34 that "B.S. 12 requires an initial set of not less than 45 minutes". There are a few other places where a newcomer to the subject will find similar points of confusion.

It is not a book for the student of the high-grade course, nor for those already partially conversant with the field. Such people would find the book very limited in its treatment of most of the subjects. At 12s 6d, it seems to be rather expensive for a book of this type, and it might have been more popular had it been produced in a cheaper binding and a slightly smaller size, so that it could be treated as a pocket book to be carried around and thumbed over on the site.

C. Hobbs.

Scandinavian Architecture

by Thomas Paulsson. Leonard Hill (Books) Ltd. 42s.

MR. Paulsson's book, translated from the Swedish edition in collaboration with his wife, is the first synopsis of Scandinavian architecture that has come into my hand. It is most valuable, both for what it reveals of the connection of Scandinavian architecture with that of the rest of Europe during ancient times, the Middle Ages and the Renaissance, and for the fact that the justification for contemporary architecture in Sweden is evidently almost entirely biological and sociological, rather than formal or technical. It is noteworthy that Mr. Paulsson credits the Swedish edition of Lewis Mumford's *The Culture of Cities* with great influence on Scandinavian town planning. A work more wholly opposed to the public realm as it has hitherto been conceived in Europe could not be imagined. No doubt, the bourgeois cosiness of much Swedish social democratic architecture owes a good deal to Mr. Mumford's notions on "bi-polar domesticity" and to his garden city ideas that marital felicity requires the accompaniment of bird-song, shrubbery and the chirping of crickets for its proper fulfilment. Mr. Mumford's horror of the public and political is evidently shared by his followers, for architects of wholly international standing, such as the late great Gunnar Asphund, Sven Markelium, Alvar Aalto, and the fine Norwegian architect, Ove Bang, scarcely receive the mention their public achievements would seem to warrant.

On medieval architecture, Mr. Paulsson is most interesting. Until the Hanseatic league brought Scandinavia under a preponderant German influence, such durable stone architecture, as existed in Scandinavia in the early Middle Ages, owed much to English influence. The conversion of Sweden and Norway to Christianity was either directly due to English missionaries, or to Scandinavian prelates like Bishop Eystein of Trondheim who had studied in England at Canterbury and Lincoln. Trondheim Cathedral in Norway illustrates all phases of English medieval architecture from the late Norman to the decorated Linnköping Cathedral in Sweden, is rather similar to Southwark or Salisbury retrochoir, or to the Temple Church. Early Renaissance architecture in Scandinavia shows strong Flemish mannerist and North German influence, later Baroque architecture is more Italianate or French but still remarkably reserved. The early timber domestic and ecclesiastical architecture of Scandinavia should be studied closely. It has affinities with Japanese peasant architecture for purely technical reasons. This is a most valuable and welcome book.

Thomas Stevens.

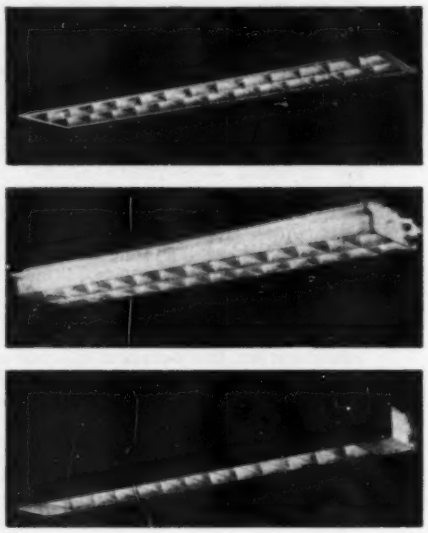
NEW PRODUCTS

In this feature are reviewed new lines introduced to the building industry for the first time and additions or improvements to existing ones. Any advantages claimed for a product are from information supplied by the manufacturer

Fluorescent Lighting Fittings (A)

The new Comfort lighting range of fittings is based on a combination of specially designed reflectors, louvres and diffusers. It is possible to provide lighting installations which will produce, when necessary, a general illumination level of 100 lm/sq ft or more, with complete comfort. In these new fittings, the source of light itself is shielded from the observer and the remainder of the fitting is of such low brightness that it cannot disturb anyone at any reasonable angle of view. For factory lighting, the range includes spun anodized aluminium reflectors in which careful control of the contour has produced satisfactory, smooth light distributions which are free from sudden changes in illumination. For use in offices, the fittings have anodized aluminium trough reflectors combined with specially designed stepped louvres, also of anodized aluminium, which re-direct the light from fluorescent tubes in the preferred directions. There are variations of the principle available both for flush mounting and for mounting below the ceiling; some have opaque and some translucent sides, the brightness of which is kept within limits to ensure a comfortable installation. In general the light is directed rather more downwards than in conventional designs. There is, in addition to the reflectors, a refractor which achieves the same optical and visual results. Three fittings from the range are shown in our illustration. On the top is a twin tube recessed fitting for two 5ft 80W tubes, available either as a single unit or for mounting in continuous runs. Hangers can be supplied for fixing into Burgess or Frenger ceilings or into plain framed-up openings. The central spine carrying the louvres is easily detachable for access to the 200/250W switchless start control gear. Length: 62in over body (64½in over flange). Weight: 31lb. In the centre is a twin tube pendant for two 5ft 80W tubes and with luminous Diakon sides. This unit's Low-glo louvres are carried by a central white enamelled reflector, the exterior metalwork is stove enamelled white, and the central spine is detachable. Length: 62in. At the bottom is a single tube pendant (F.62345) for one 5ft 80W tube.

General Electric Co. Ltd., Magnet House, Kingsway, London, W.C.2.
Readers' Information Service, Ref. A. Date 2/9/59.



A

★

Die-cut Floor Tiles (B)

A selection of new 9in by 9in die-cut floor tile motifs have just been added to the Accotile and Accoflex ranges. They can be worked into the general floor pattern and are laid complete just like a normal tile with the same working characteristics. These new motifs show such things as a teapot, cup and saucer, a tankard and cocktail glass. They are considered to be particularly suitable for kitchen, canteen, bar and public house flooring contracts.

Armstrong Cork Co. Ltd., Flooring Department, Bush House, Aldwych, London, W.C.2. Covent Garden 1101.
Readers' Information Service, Ref. B. Date 2/9/59.

★

Internal Protection of Water Tanks

A new method of preventing rust formation on the inside of water tanks, having capacities ranging from 100 to 1,500 gal, has been evolved by the manufacturers of Metalife liquid metals. In this case the product has been cast in a solid form, so as to act as an anode in a cathodic protection system. The solid Metalife anodic metal unit is self-supporting and requires no brackets or extra fittings whatsoever. It can easily be installed by anyone in a few minutes and the tank need not be emptied or put out of action whilst this is being done. Once installed no further attention is necessary, and it is claimed that a unit will give from 8 to 12 years service, depending on the size of the tank and the type of water. Further claims on behalf of the new product are that all the metal below the water line will be protected even if the water is so hot that coatings and galvanized iron break down, and any rust already formed in the tank will be removed.

Southern Metalife Ltd., Station Square, Harrogate, Yorkshire. Harrogate 67641.
Readers' Information Service, Ref. C. Date 2/9/59.

★

New Treatment for Thermoplastic Tiles

An entirely new type of product has been introduced which combines floor cleaning and maintenance in one operation. Wax Clean, as it is known, is supplied in liquid form for the treatment of Thermo-plastic tiles, although the manufacturers state that it is also quite suitable for other types of floor. It should be added to the water to be used for cleaning, applied to the floor, allowed to stand for a few minutes (particularly on obstinate soilage) and then mopped dry in the usual way. Rinsing is not necessary and the floors are left perfectly clean. The wax remains behind as a deposit after the surface has dried and thus helps to preserve the tiles. It is claimed that Wax Clean is non-slip, provides the tiles with an



B

attractive sheen without the dangerous slippery surface which generally results from a high gloss finish, and the film of wax left by each application tends to prevent rubber heel marks, which, if they do occur, can be removed by using the product in its concentrated form. Price: 16s per gal or 8s 6d per half gal.

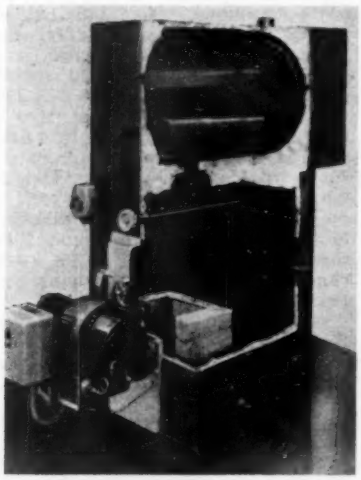
Spross Products Ltd., 10 Sovereign Street, Leeds, 1.

Readers' Information Service, Ref. D. Date 2/9/59.

★

Convertible Oil-fired Boilers (E)

The new Advance double-duty boiler is primarily designed for oil firing, but it can be solid-fuel fired in an emergency. It is a complete packaged unit with indirect cylinder inside the boiler. It is pre-wired with pre-shaped combustion chamber and is ready for immediate connection to the pipework. A regulator for the heating is incorporated in the boiler so that the flow temperature to the radiators can be set to give the required temperature. The temperature of the hot-water cylinder remains constant. Seven sizes are made,



E

ranging from 50,000 to 170,000 B.Th.U./hr. output. The company also makes the ordinary type of heating boiler packaged unit without indirect cylinder, but complete with oil burner, pre-wired and with insulating jacket. This type also can be obtained in seven sizes, ranging the same as the double-duty boiler.

Advance Engineering Ltd., The Grove, Coulsdon, Surrey. Uplands 2254.

Readers' Information Service, Ref. E. Date 2/9/59.

★

High Velocity Air-Conditioning (F)

This company has developed a system of high velocity air conditioning in conjunction with Thermotank Ltd., for buildings in this country. It is the dual duct system which has been used by Thermotank on contracts in the U.S.A. In this system, air is circulated at two, three or four times the speed of earlier systems and through much smaller ducts. It is claimed that in buildings where these smaller ducts are used and where they are distributed in false ceilings to overhead diffusers, the saving in space is so great that one complete extra floor can be got into the same height per 10-15 floors. Equally, the saving can be measured in terms of floor space if the distribution is by vertical ducts. The system provides for the conditioned air to be emitted under windows and the control is so complete that, in the most elaborate schemes, rooms can be held at widely differing temperatures if desired and even heating achieved in some rooms and cooling in others at the same time. The unit illustrated, which is similar to the type recently used on a contract for Barclays Bank Ltd., has two principal controls. The sensing element of the thermostatic control is contained behind the lower part of the grille aspirating outlet. This control normally works on the hot air duct and controls the air motor which opens and shuts the valve to the duct. In a large installation a condition has to be catered for in which all the hot or cold duct outlets, except one or two on a particular run of duct, are closed. If uncontrolled, this will lead to an excessive build-up of static head at the one or two open valves. A constant volume controller is, therefore, included in the unit for controlling the cold air valve.

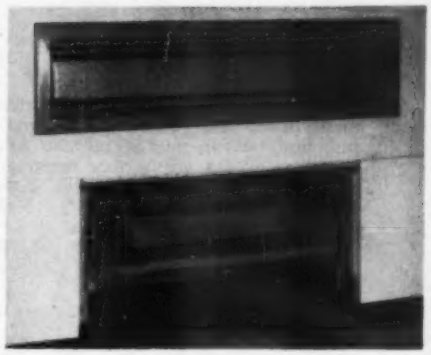
Benham & Sons Ltd., 66 Wigmore Street, London, W.1.

Readers' Information Service, Ref. F. Date 2/9/59.

★

New Clear Lacquer

Evokote Type 20 clear lacquer is a two-part Epikote resin-based lacquer for application to all types of wood. It is claimed that the product not only preserves the natural grain of the wood but also resists heavy abrasion, chemical and solvent spillage, and frequent washing with detergents and antiseptic solutions. It is considered suitable for application to timber flooring, bar tops, counters, hardwood panelling, table tops, doors, and furniture in canteens, offices, hotels, hospitals, showrooms, shops, etc. The lacquer is supplied in two parts, comprising base and hardener, and they must be mixed together in the correct proportions before use and applied within 24 hours. The resultant finish is a hard, glossy and impermeable coating capable of withstanding prolonged hard wear. After hardening, the lacquer may be cut back and buffed to give greater depth and richness of gloss, or, alternatively, the film may be abraided with wire wool to give an eggshell finish. Proportion



F

for mixing is two parts of base to one part of hardener by volume. The mixture should be allowed to stand for 2/4 hours before use and then applied by brush in two or three coats as required. Interval between coats should not exceed 24 hours. Average coverage: 40/60 sq yd per gal, per coat.

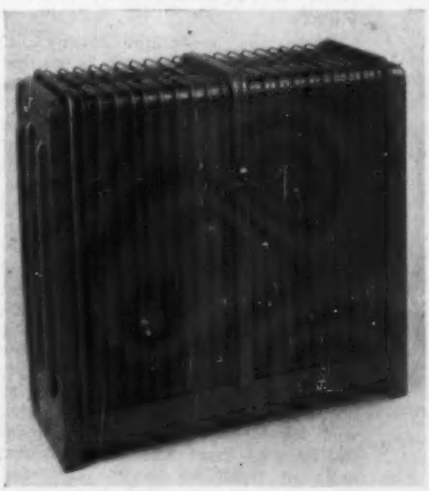
Evode Ltd. (Paints Division), Common Road, Stafford. Stafford 2241.

Readers' Information Service, Ref. G. Date 2/9/59.

★

Night Storage Heater (H)

The latest addition to the Thermodare range of night storage heaters (see New Products, January 7, 1957) is the 3kW model No. L.30. This provides an economic unit for the larger installation where floor space is at a premium and it reduces wiring costs by making the fullest use of the standard 15 amp wiring circuit. The new heater enables the capital cost of an installation to be greatly reduced, for example in an area where a loading of 12kW is required, four of the new heaters can be used instead of six 2kW or eight 1½kW models. The respective savings in these cases will be £15 and £30. Surface temperatures are stated to be well within the requirements of



H

NEW PRODUCTS (continued)

E.D.A. recommendations. The heater incorporates the Thermodare thermal link and built-in guard and also has an easy access side entry terminal box. Overall dimensions: 31in high by 12in wide by 32in long. Net weight: 580lb. Price: £22 10s.

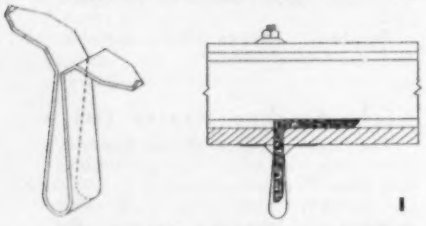
Thermodare (Great Britain), 94/98 Petty France, London, S.W.1. Abbey 6586.

Readers' Information Service, Ref. H. Date 2/9/59.

★

Easier Insulation Installation (I)

A patented spring clip has been produced to enable Polyzote insulation board to be erected more quickly and more easily. The clip is for use when Polyzote boards are fitted to a roof with angled metal purlins. It fits over the vertical of the purlin and teeth on the two flanges of the clip



I

grip the Polyzote board. The board merely has to be cut to size and held in position while the clip is slipped on. When fixed by this method, the boards can be quickly removed when roof repairs or alterations are necessary.

Expanded Plastics Ltd., Mitcham Road, Croydon, Surrey. Thornton Heath 3622.

Readers' Information Service, Ref. I. Date 2/9/59.

★

New Attachment for Power Tools

A 5in dia. perforated cutting disc attachment for power tools is the first of a new range of surfacing and cutting tools recently introduced under the name of Surcut. It will clean and smooth wood block or boarded floors and decking, and will shape most materials in common use, including plastics, compositions and non-ferrous metals. With hardly any practice, it is possible to remove paint and varnish without harming the material beneath. The complete Surcut cutting disc kit is in three parts: a cutter, a backplate and a universal adaptor, which allows the cutter to be used on any portable electric drill. The cutter is a disc of hardened and tempered tough steel, with 108 teeth so arranged in tangential lines of three teeth that the disc will cut right up to its perimeter. There is a clearance hole in the front of each tooth, through which swarf can pass to the back of the disc, from whence it is automatically cleared and discharged away from the operator. Price: 17 6d complete; replacement cutters, 11s 6d.

Surform Division, Simmonds Aerocessories Ltd., Stornoway House, St. James's, London, S.W.1.

Readers' Information Service, Ref. J. Date 2/9/59.

★

Metal-cutting Machine (K)

This company is now marketing the Barson Rotor, a metal-cutting, circular-sawing machine. This machine has the advantage that the head can be rotated when angle cuts are required, instead of rotating the material to be cut, which, in the case of long lengths, can cause inconvenience in the workshop. The machine is powered by a 0·85 h.p. electric motor and has a saw blade of 11in dia. It is capable of dealing with tube sizes up to 3¼in solid material up to 2¾in dia. and profiles from 3¼in by 3¼in to 1½in by 6in. Two models are available, one for cutting iron and steel and the other for non-ferrous material. Machines can be supplied for any voltage and for either 3-phase or single-phase current, also with complete cooling arrangement and with stand.

J. C. Neville Ltd., 34 Priests Bridge, London, S.W.14. Prospect 8796.

Readers' Information Service, Ref. K. Date 2/9/59.

★

New Industrial Gloves

This company is now producing a three-quarter dipped P.V.C. industrial glove, with the object of providing greater finger protection and yet retaining the maximum possible ventilation. The P.V.C. coating extends to the knuckles, leaving the interlock lining exposed on the back of the hand. The uncoated fabric back allows air to circulate freely inside the glove, thus keeping the wearer's hands cool and comfortable. They are produced in rough finish only and this surface provides extra grip for the handling of slippery or oily surfaces, whilst the P.V.C. coated fingers give protection from abrasion. Type 951 gloves are produced in three sizes, 7½, 8½ and 9½.

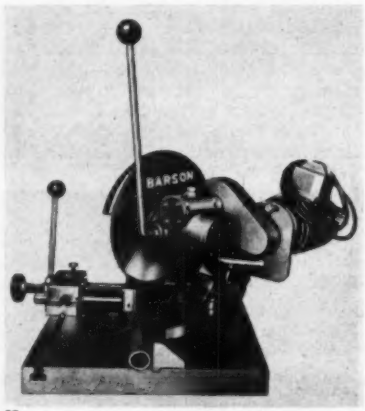
James North & Sons Ltd., Kirkman House, 54a Tottenham Court Road, London, W.1. Langham 4811.

Readers' Information Service, Ref. L. Date 2/9/59.

★

Gas-fired Domestic Boiler (M)

The Therm-Glow thermostatically controlled gas-fired domestic boiler is the latest addition to the Glow-Worm range. It has a rated heat output of 30,000 B.Th.U./hr., plus convection heating equal to 3,000 B.Th.U. The Therm-Glow is fully automatic and its controls include a



K

gas tap, governor, relay valve, thermostat and flame failure safety device, whilst provision is made for the fitting of a clock control. It has a built-in draught diverter which simplifies chimney installation. The only other work required, in addition to the plumber's connections, is the fixing to the gas supply. It is capable of heating hot water cylinders with capacities ranging from 30 to 60 gallons. In addition to heating the 30 gal cylinder, the Therm-Glow will, it is claimed, provide sufficient hot water to supply radiators up to a surface area of 120 sq ft. The boiler does not need a built-up base, but some protection, such as asbestos, should be used on rubber-tiled or similar floors. Overall dimensions: 34⅞in high to top of boiler plate (40⅞in to top of diverter) by 18½in wide by 18½in deep. Flue pipe size: 4½in dia (B.S.S. 41). Colours: white, cream, blue, green. Price: £42.

Glow-Worm Boilers Ltd., 47 Hatton Garden, London, E.C.1.

Readers' Information Service, Ref. M. Date 2/9/59.



M

HOPE'S

COMPLETELY REVERSIBLE

WINDOWS

would have prevented this..

The windows 100ft. up stay dirty...

PEERING through murky panes, housewives in first "skyscraper flats" in Street, are taking a dim view of the Town Council.

It is unfair and dangerous, they say, that the Council should expect them to clean their own windows—when the only method is by leaning out backwards over a sheer drop of up to 100 feet.

"I don't care how dirty my windows get—I just can't do it," a housewife said today.

"There is nothing more terrifying than sitting out over the ledge and trying to clean these huge panes, knowing that one small slip will send you hurtling down.

"It's a job for a steeplejack or a mountaineer—certainly not for council tenants."

Firm for job

. . . Housing Manager . . said: "When the 11-storey flats were designed, the architects thought it would be comparatively easy to clean the outside of the windows by leaning out with a mop or rag on a stick.

"However, in view of the protests, I am investigating whether any local window-cleaning firm would consider taking on the job

"I have some sympathy with the housewives—I haven't much of a head for heights myself."

HOPE'S

● In Birmingham new multi-storey flats are being fitted with reversible window frames so that the glass can be cleaned from inside the rooms. With the older multi-storey flats in the city the cost of having the outside of the panes cleaned is borne by the Housing Revenue Account.

Extract from "Birmingham Mail" Friday, May 22 1959

Send for List 284a: HENRY HOPE & SONS LTD

Smethwick, Birmingham & 17 Berners St., London, W.1

MEMBER OF THE METAL WINDOW ASSOCIATION

PASSPORT TO PERFECTION AT PIMLICO

The residents of Dolphin Square, Europe's biggest block of flats, do their shopping on beautiful, hardwearing, easy-to-walk-on rubber — supplied by Runnymede.

Why was Runnymede chosen?

Partly because Runnymede rubber *is* so beautiful, hardwearing and easy to walk on. Partly because Runnymede Pattern Books carry colours to suit every purpose and taste. And partly because Runnymede is nothing like as expensive as the impression it creates. Phone or write for full details.



Dolphin Square, Pimlico, London.



The Shopping Arcade at Dolphin Square.

RUNNYMEDE RUBBER COMPANY LIMITED

6 Old Bailey, London, E.C.4. Telephone: City 2471.

CURRENT MARKET PRICES (LONDON)

These prices apply to material purchased in the quantities named or otherwise as might be expected for a new building of moderate size. They include delivery and are the material basis used in the build-up of "Measured Rates" and subject to the conditions heading that schedule. Prices are under careful constant review but should be confirmed.

2 September 1959

AGGREGATES AND SAND

1½in—all in—ballast	26/6	Yard cube delivered (in five-yard loads or more)
¾in do. do.	27/-	
¾in screened shingle	24/6	
¾in do. do.	25/9	
¼in granite chippings	50/-	
Sharp washed sand	27/6	
Pit sand	24/6	
Building sand	24/-	
Broken brick	21/-	
1½in shingle	22/-	
Cartage of muck	10/-	

BUILDING MATERIALS AS DESCRIBED, CENTRAL LONDON

CEMENTS packed in paper bags	Per ton
Portland in 6ton lots	112/-
Do., from 1ton to 5ton 19cwt do.	124/-
Do., Rapid hardening (6ton lots)	122/6
Do. (but 1ton to 5ton 19cwt)	134/6
Cement "Aquacrete" (do.)	156/6
Do., "417" or "Polar" (do.)	156/6
Do., "White" 1ton (lots)	277/6

LIME—		
	134/6 (1ton loads) deliv'd	
Hydrated .. including	132/- (2/3 do.)	do.
White .. .. Bags	122/- (4/5 do.)	do.
	120/- (6 do.)	do.

PLASTER—	
Keenes, coarse, pink	234/- ton
Do. do. white	239/- do.
Sirapite, do.	175/- do.
Do. finish	183/3 do.
Hardwall, do.	174/- do.
Plaster, coarse, pink	164/6 do.
Do. do. white	174/- do.
⅜in Gypsum Plaster Lath ex works (600sq yds)	2/6½ sq yd.
⅜in Do. do. Wallboard do.	2/10 do.
3½in Jute scrim (100yd roll)	9/4 each
Cow hair (under 3cwt)	109/- cwt

FIRECLAY—	
In non-returnable bags (1ton lots)	213/- ton delivered
Fire cement	12/3 14lb

BRICKS

BACKING BRICKS (in truck loads)—		
Flettons	118/- per 1,000	delivered
Do. Keyed	120/-	do.
Do. bullnose	152/6	do.
Blue wirecuts (Net)	542/-	do.
White	202/-	do.
Southwater engineering (Class A)	400/6	do.
Firebricks—2½in	95/9 per 100	delivered
Do. —3in	115/-	do.

STOCK BRICKS—		
Mild stocks	119/- per 1,000	at Works
Second, do.	274/-	do.
First, do.	300/6	do.

Add for delivery—approx. 55/- per 1,000 in lorry loads.

FACINGS (ex truck or lorry)—		
Rustics	150/- per 1,000	delivered
White	220/-	do.
Blue pressed, 2½in (Net)	604/-	do.
Do. bullnose	618/-	do.
Reds (Multi sand faced)	350/-	do.
White glazed stretchers	1696/-	do.
Do. headers	1670/-	do.
Do. bullnose	2120/-	do.
Do. double stretchers	2053/-	do.
Do. double headers	2173/-	do.
Breeze fixing bricks	30/3 per 100	
Fire tile and lumps	34/- ft cube	
Wall ties—8in by ⅞in by ⅛in, galvanized	72/6 per cwt	
Cement mortar (1 : 3) hand-made	99/6 yd cube	

BRICKLAYERS' SUNDRIES— AIR BRICKS	9 by 3in	9 by 6in	9 by 9in	12 by 9in
Iron .. each	2/5	3/11	5/10	7/10
Galvanized do. do.	4/1	6/9	10/2	13/7
Terra Cotta do.	1/2	2/4	5/7	11/1
Chimney pots, Terra Cotta (11 to 24) do.	1ft 8/7	2ft 14/11	3ft 34/1	4ft 58/11

PARTITIONS— 18in by 9in Blocks keyed for plastering	2in	2½in	3in
Per yd super in 6ton lots			
In solid clinker including any half blocks	3/10	4/7	5/6
In cellular clinker blocks	3/11	4/7	5/3
In hollow clay blocks	—	4/5	5/5
Clinker blocks in small quantity	6/1	7/2	8/7

Intermediate quantities in all types may be had at intermediate prices.

Smooth in lieu of keyed faces extra cost per side 3d per yd super

SINKS— Fireclay white glazed in and out—standard quality	24 by 18in	30 by 18in	30 by 20in
London pattern, no overflow, 6in deep	73/-	90/9	100/9
Belfast, plain edge, 10in deep	86/6	144/6	194/9

FLUE, LININGS, PLAIN, CIRCULAR (FIRECLAY)—	Foot lineal Straight	Each Bends
9in diameter	4/8	14/-
10in do.	5/8	17/-
12in do.	10/9	32/9
9in diameter, beaded end, 12in high		6/3

FLUE PIPES AND FITTINGS—	4in	5in	6in
Heavy asbestos type, 6ft length	18/6	25/6	32/6
Do. 3ft length	9/3	12/9	16/3
Do. bends	7/2	9/-	10/8
Light asbestos type, 6ft lengths	16/-	20/-	25/6
Do. 3ft length	8/-	10/-	12/9
Bends	5/7	7/1	8/8
Baffler	15/5	18/4	19/4

DRAINAGE GOODS

GLAZED STONEWARE STANDARD LIST (NOV., 1956)	4in	6in	9in
ORDINARY TYPE—Each			
Pipes in 2ft lengths	3/4	5/-	9/-
Bends	5/-	7/6	20/3
Junctions (4in on 4in, 6in on 6in, 9in on 9in)	8/4	12/6	27/-
Gullies with 4in outlets	12/6	13/9	22/6
4in horizontal inlets	4/-	4/-	4/-
4in vertical do.	6/-	6/-	6/-
Black iron grids	1/6	2/10	5/6

Adjustment to Current Cost	2ton lots or more	Less than 2ton lots
2in to 9in diameter "Best" pipes and fittings.	50 pieces or more	Under 50 pieces
Percentages to add	—22½%	—5% NET

Further percentages to be independently added in respect of: British Standard pipes, etc., 10. "Best" Tested pipes, 37½ British Standard Tested, 47½.

IRON DRAINAGE GOODS— Each	4in	6in
Cast iron pipes, 9ft long	84/6	123/9
Do. 6ft do.	60/4	92/10
Do. 4ft do.	46/1	71/2
Do. 2ft do.	28/-	42/2
Short bend	19/-	50/7
Junction	33/8	70/6

CURRENT MARKET PRICES (Continued)

DRAINAGE GOODS—Continued

GULLEY PARTS—	4in	6in	
Traps, high level, invert	33/8	91/4	each
Inlet, bellmouth pattern	17/8	35/7	do.
Do. with one vertical branch	31/–	58/2	do.
Do. with two do.	84/–	122/3	do.
Extra for sealed cover	10/8	13/10	do.

RAINWATER SHOES—	4in	6in	
With vertical inlet and rebated top	44/1	87/9	each
Extension piece	19/4	23/3	do.
Flat loose coated grating	4/7	4/7	do.
Loose solid coated cover	6/2	6/2	do.

MANHOLE CHANNELS, WHITE GLAZED— Each	4in	6in	9in
Straight, 2ft long	17/5	25/6	42/11
Taper, do.	29/–	29/–	44/–
Bends, main, half section	33/8	48/9	80/–
Do., branch, do.	20/11	29/–	—
Do., do. three quarters, do.	29/–	46/6	—
Junctions, single	27/10	48/9	—
Do., double	38/3	66/3	—

BROWN GLAZED CHANNELS— Based on standard list (less than 100 pieces)	4in	6in	9in
Half-round main channel (2ft long)	2/6	3/9	7/–½
Extra for stop ends	2/6	3/9	6/9
Extra for outlets	5/–	7/6	—
Channel bends with splayed ends	7/6	11/3	—
Three-quarter section do.	10/–	15/–	—

MANHOLE COVERS—	Black
24 by 18in foot traffic	29/3 each
Do. Strong do.	53/9 do.
Do. Light car traffic	95/3 do.
Do. Road traffic	119/3 do.

SUNDRIES—	Galvanized
Manhole steps	9/3 each
4in Mica valve fresh air inlets	16/– do.
Plumber's hemp	9/– per lb
Gaskin, caulking	1/5½ do.
Canvas backed hair felt, 4in wide	9d per ft run

ROOFING MATERIALS

WELSH SLATES (delivered)—

Sizes in inches	Full Loads per 1,000	Quantity 500 to 599 per 100	1 to 49 per doz
22 by 11	2246/–	265/–	39/–
20 by 10	2021/6	237/6	35/–
18 by 10	1413/–	164/6	24/3
16 by 10	1120/–	131/–	19/3
14 by 9 Damp Course	668/–	70/9	10/6
14 by 4½	328/–	31/–	4/9

TILES (Brosley and Staffordshire)—	per 1,000	per 100
10½in by 6½in Machine made, 6 ton lots	302/6	44/9
Do., hand made, sand faced (Berks red)	327/–	58/–
Hips, valleys and angles	36/3 per dozen	
	per 1,000	per 100
Plain concrete tiles	210/6	25/6

Sheeting asbestos corrugated, 6in pitch	8/3¾ yd super
4½in by 16 gauge, drive screws (galvanized)	17/9 gross
7½in by ⅜ hook bolts and nuts (do.)	57/9 do.
Washers, round, flat galvanized	4/10 do.
Do. do. bituminous	2/– do.

ROOFING FELT—	
Sanded bitumen felt (44lb)	1/1 yd super
Do., but 60lb in weight	1/7 do.
Inodorous felt, best quality	2/11 do.
Do., second quality	2/3 do.
Underlining	1/8 do.
Sheathing	1/8 do.
Galvanized felting nails	2/4 lb

THERMAL INSULATION—	
½in Insulating Gypsum Baseboard (600sq yds)	3/– sq yd
½in Do. Do. Lath do.	3/– do.
½in Do. Do. Wallboard do.	3/3 do.
¼in Asbestos (Fully-compressed) Sheet	8/4 do.
½in Insulating Cork Slabs	7/6 do.
Silicate Cotton (2ton lots)	1/6 ft cube

STONE

PER FOOT CUBE in random blocks not exceeding 20ft cube in each, free on rail London.

Monks Park 9/7 St. Aldhelm 10/10
Portland brown Whitbed 9/2
Doulting 10/2 Beer 9/–

TIMBER

Softwood—sawn—random lengths.

	Per standard	Per cubic ft
Carcassing quality	£105	12/8
Joinery quality	£125 and up	13/4

Plain edged unsorting flooring per square	½in	1in	1½in	1¾in
	90/–	110/–	138/–	165/–

¼in Hardboard 4/1 sq yd.
Larger quantities cost less.

SUNDRIES—	Dia.	3in	6in	9in
Black hexagon bolts, nuts and washers. Each	½in	10d	1/2	1/5
	⅝in	1/3	1/8	2/1
	¾in	1/9	2/4	3/–
Sashline, hemp, good quality Per yd Run			No. 6 10d	No. 8 1/1½	No. 10 1/5
Floor brads				84/3 per cwt
Cut Clasp Nails				85/6 per cwt
Steel ordinary screws	1in No. 8	3/8	2in No. 8	6/3	per gross
Brass, do.	Do.	9/8	Do.	17/–	per gross

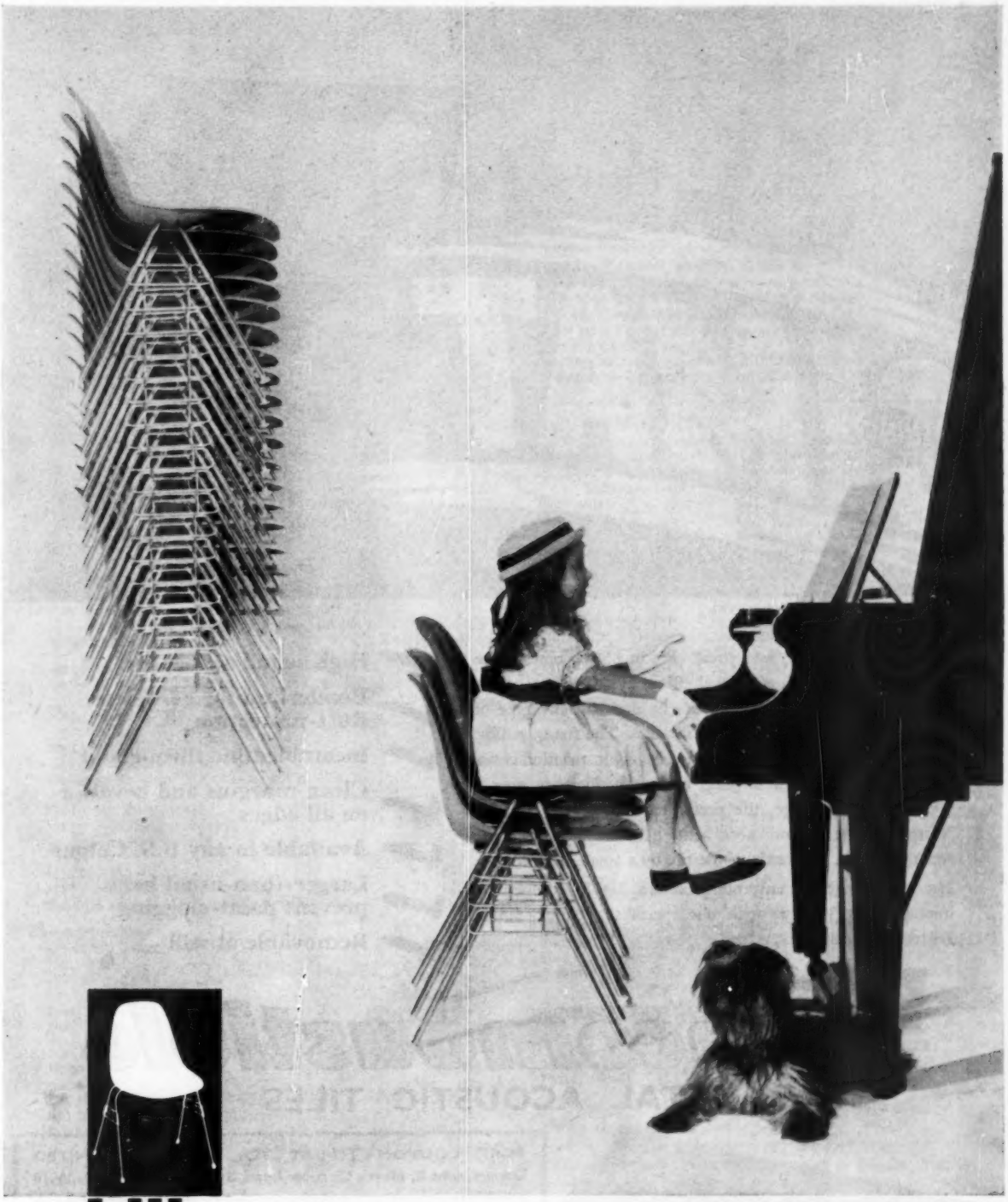
HARDWOOD. Normal joinery quality.		Per ft cube
Mahogany, African	Square edge	30/–
do. Honduras	do.	66/–
Teak, Burma and Siam	do.	78/–
Walnut, Australian	do.	84/–
Oak, English	Sawn Logs	42/–
do. Yugoslavian	do.	47/6
Walnut, African	do.	25/–

BUILDING BOARDS

Description	Rate	Unit
16mm Birch blockboard	202/–	Per 100ft
22mm do. do.	245/–	
Austrian Mahogany faced one side, blockboard 18mm thick	348/–	super,
Austrian figured Oak faced one side, blockboard 19mm thick	407/–	but
Beech, 6mm plywood	108/–	from one board
Birch, do. do.	81/–	
Do. 9mm do.	115/–	up to
Teak faced one side, plywood 6mm thick	374/–	a
Austrian figured Oak one side, 6mm	224/–	
Australian do. Walnut do. do. ⅛in	383/–	bundle

IRONMONGERY

	2in	3in	4in	5in	6in
Cast iron Butts, per pair	1/4½	2/4	3/7	6/11	9/8
Hinges, spring, single action regulating, japanned, each	—	8/3	12/9	16/9	22/3
Do. but double action spring only, each	—	17/6	22/3	21/–	35/9
Do. blank only, each	—	10/3	14/–	28/–	24/3



hille
CONTRACT DIVISION

VARIATIONS ON A CHAIR—they stack securely, interlock in regular rows, come in six colours. Clip-on textile or vinyl upholstery if you wish. Shells are moulded in polyester resin, reinforced with glass fibre, from matching dies that produce a glass-smooth finish on both sides. The under-frames are attached by rubber shock mounts and fitted with self-levelling nylon glides. One of many glass fibre designs by Charles Eames, produced originally by Herman Miller of America and now made here by Hille. Retail price £8. 17. 6, more with upholstery, less on orders above six. Visit our showrooms, 39/40 Albemarle Street, London W.1. Hyde Park 9576, and 24 Albert Street, Birmingham 4, Birmingham, Midland 7378, or write for leaflets and we will say where you may see Hille furniture.

Internationally-honoured furniture for homes and offices



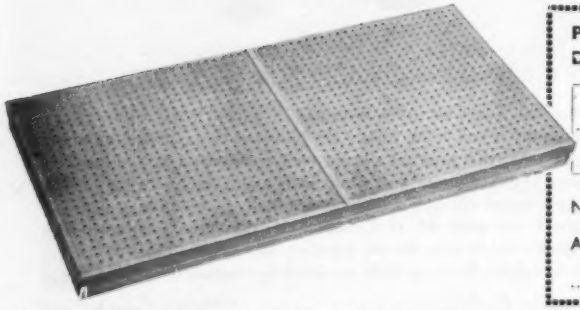
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ADDRESS.....

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CELOTEX LIMITED, NORTH CIRCULAR ROAD, STONEBRIDGE PARK, LONDON, N.W.10. Telephone: ELGar 5717 (10 lines)

CURRENT MARKET PRICES *(Continued)*

IRONMONGERY—*Continued*

	12in	18in	24in	30in	36in
Tee hinges (japanned) per pair	2/-	3/10	—	—	—
Do., but stronger, per pair	3/4	6/1	8/3	—	—
Hook and Ride hinges, per pair	—	—	13/4	16/3	24/10
BOLTS—each—	3in	4in	6in	8in	10in 12in
Cabinet, barrel, straight or necked	1/6	1/8	2/3	—	— —
Square spring, with brass knob	1/4	1/6	1/11	—	— —
Tower bolts	—	1/10	2/8	3/6	4/5 5/2
Barrel bolts	—	2/9	4/-	5/2	6/8 8/1
Add to Tower or Barrel bolts if necked	½*d*	¾*d*	1*d*	1*d*	1*d* 1*d*

LOCKS—each—

Rim lock, 2 lever, wrote case, brass bolt and bushing	12/9	Brass furniture or Bakelite do.	5/- 3/3
		Bakelite finger-plates	2/8
Mortice ock, 2 lever, bushed	12/9	Brass furniture or Bakelite do.	8/9 3/10

Cylinder latches, japanned case	16/-
Brass sash fastener	each 5/-
Casement fasteners (malleable)	do. 1/7
Do. stays (do.)	do. 2/2
Axle pulleys (brass face, iron wheel) 1¼in	do. 3/3
Do. as last, but with brass wheel 1¼in	do. 4/11
Sash line, No. 8 Anchor, yellow label	per yard 1/-

METAL GOODS

British rolled steel joists ex mills to basis sections on site (6in by 5in, 8in by 5in or 6in, and 10in or 12in by 6in)	£43/10/0 per ton
Extra cost over basis for following sections—	
9in or 18in by 7in, 14in by 5½in, 15in by 5in, 14in or 15in or 16in or 18in by 6in, 20in by 6½in, 20in by 7½in, 10in or 12in or 14in or 18in by 8in	10/- per ton
5in by 4½in, 7in by 3½in, 13in by 5in	15/- do.
12in by 5in, 22in by 7in	20/- do.
6in by 4½in, 7in or 8in or 9in by 4in, 10in by 5in	25/- do.
4in by 3in, 10in by 4½in	30/- do.
5in by 2½in, 5in by 3in	35/- do.
6in by 3in, 24in by 7½in	40/- do.
3in by 3in	50/- do.
4½in by 1½in	65/- do.
3in by 1½in, 4in by 1½in	70/- do.
1in mild steel reinforcing rods ex mill d/d	£41/9/0 do.
Extras per ton	
⅞in or ¾in diameter in size	15/- per ton
⅝in	30/- do.
½in	62/6 do.
⅜in	92/6 do.
⅛in	132/6 do.
¼in	172/6 do.
Extras for length	
5ft to 3ft	7/6 do.
3ft to 2ft	15/- do.
2ft	22/6 do.
40ft to 45ft	15/- do.
45ft to 50ft	22/5 do.
Bolt and Nuts	112/- per cwt
Trench covering, including trays 1½in deep and rebated frames, 9in wide	25/- foot run
Do., but 12in wide	27/- do.
Do., but 14in wide	30/- do.
Do., but 18in wide	39/- do.

METAL SUNDRIES

Cast iron pavement lights with 4in by 3in prism and convex lenses in alternate rows	per 33/- ft super
Iron single fire doors, panelled both sides, pivot hung and self closing, to angle frame rebated and lugged, to meet fire regulations	54/- do.
24 gauge galvanized Tallboy 6ft high, 9in diameter with 9in by 12in base	55/- each

CHAIN LINK FENCING—

In 25 yards lineal rolls inclusive of line wire.

2in mesh	Height in inches— 36	42	48	60	72
10½in wire gauge	126/-	147/-	168/-	210/3	252/3
12½ do.	87/6	102/6	117/-	146/3	175/6
14½ do.	61/3	71/9	81/6	102/6	122/6

DOUBLE SOOT DOORS AND FRAMES—

Fitted with brass turn-buckle and cast key	9in by 9in 21/6	12 in by 9in 31/3	14in by 12in 54/-

SLIDING DOORS, GATES AND PARTITIONS—

Factory sliding doors in two leaves containing about 100sq ft with mild steel angle frames covered with 24 gauge corrugated galvanized sheeting and including hanging tubular track and gear complete	18/6 ft super
Factory entrance gates with mild steel frames clad with 2in mesh chain link complete	16/6 do.

STEEL ROOF LIGHTS—

In Skylights and Lanterns, Standard type with puttyless glazing, lead flashings, and ¼in rough cast glass; in the case of Lanterns 18in vertical sashed sides are provided in addition.

Size at Base	6ft by 4ft	8ft by 6ft	10ft by 8ft
Skylights	£35 5	£50 10	£69 10
Lanterns	£55	£76 5	£110

HIGH GRADE DOMESTIC BOILERS—

Coke Fed. Performance 20 to 40 gallons raised from 40°F to 140°F per hour as under.

TYPE		£ s. d.
20 gallons per hour 15in wide, 23in high	Enamel finish	11 10 0
25 gallons per hour 17in wide, 26in high	Do. Grey Mottle	20 10 0
	Do. Cream Mottle	22 0 0
40 Gallons per hour 22in wide, 30in high	Do. Cream Mottle	38 0 0

GAS, WATER AND STEAM TUBES

BASIC PRICES

Internal Diameter—	¼in & ⅜in	½in	¾in	1in	1¼in	1½in	2in
Tubes per ft	9½*d*	10*d*	1/-	1/2½	1/9	2/3	2/8 3/9
Bends each	1/7	1/9	2/-	2/6	3/8	5/5	6/2 10/7
Elbows, sq. do.	1/8	1/10	2/2	2/6	3/-	4/4	5/2 8/6
Do., round do.	1/10	2/-	2/4	2/10	3/4	4/8	5/8 9/4
Tees do.	2/-	2/2	2/6	3/2	3/8	5/-	6/2 10/2
Crosses do.	4/4	4/8	5/6	6/6	8/2	11/-	13/2 21/-
Backnuts do.	4*d*	4*d*	6*d*	7*d*	10*d*	1/-	1/4 2/2
Sockets do.	6*d*	6*d*	8*d*	10*d*	1/-	1/4	1/9 2/6
Sockets dimin. do.	8*d*	10*d*	1/-	1/2	1/6	2/-	2/8 4/-

EX. STOCK IN ORDERS OF £10 OR MORE

DISCOUNTS OFF BASIC LIST.

TUBE—

Black	Galvanized
Medium (Blue)—35%	Medium—25%
Heavy (Red) —25%	Heavy —15%

FITTINGS—

Black	Galvanized
Heavy —10%	Heavy —21½%

RAINWATER GOODS (Painted or Unpainted

In consignments of 5cwt and over

From Standard List

Pipe:	2in	3in	4in	5in	6in
6ft lengths each	12/10	14/5	18/11	24/8	31/6
3ft do. do.	7/-	7/9	10/-	13/1	16/6
Shoe, ordinary do.	2/7	3/10	5/7	9/5	12/11
Bend do.	3/1	4/4	6/4	11/3	14/7
Branch, single do.	4/6	6/7	9/3	14/7	22/6
Offset, 4½in do.	3/9	5/3	7/9	12/11	17/-
Do. 9in do.	4/11	6/6	9/8	15/3	19/3
H.R. gutter, 6ft length do.	—	6/-	8/5	10/4	13/10
Angle or nozzle do.	—	2/6	3/1	3/9	5/4
Stop end do.	—	9*d*	1/1	1/6	1/9

Above plus 22½%

CURRENT MARKET PRICES (Continued)

PLASTERING MATERIALS

Sand, lime, cement and various plasters are previously included under those heads—		
Metal lathing (⅜in by 24G) (20 yards)	4/–	sq yard
Plaster baseboard ⅜in (1,200 yards) ex works ..	2/4	do.
Lath nails, galvanized	1/11	lb
White glazed tiles (6in by 6in by ¼in) small quantity	25/3	sq yard
Do. rounded on one edge small quantity	30/6	do.
Do. on two adjoining edges small quantity	33/9	do.

PLUMBER'S GOODS

4lb lead sheet (in 1-ton lots)	109/–	per cwt
Lead water pipe in coils (do.)	111/3	do.
Plumber's solder	3/7	lb
Copper tacks	8/5	do.

IRON SOIL AND WASTE PIPE. (5cwt lots and up)

each	2in	3in	3½in	4in
⅛in Medium pipe, 6ft length ..	14/6	17/2	19/3	21/11
Do., 4ft length	10/5	12/2	13/7	15/5
Bends	5/4	6/6	8/1	9/1
Do., with oval door	17/4	18/6	21/1	24/7
Junction, single	6/6	9/8	11/3	13/3
Do., with oval door	18/6	21/8	24/3	26/3
Swan necks, 4½in	6/6	10/3	11/9	13/9
Do., 9in	8/8	11/9	13/9	16/1
Holderbat, 2½in projection	5/9	5/11	6/3	6/4

Above plus 22½%

GALVANIZED CISTERNS, TANKS AND CYLINDERS—(Less than three)

each	gallons			
CISTERNS	Nominal capacity			
Bends over tops and corner plates. Riveted or welded	100	150	200	300
14 gauge	151/–	223/–	281/–	396/–
12 gauge	181/–	278/–	327/–	441/–
¼in plate	210/–	322/–	379/–	515/–
HOT WATER TANKS				
Riveted and with hand hole and ring	20	25	30	40
12 gauge	130/–	136/–	150/–	181/–
¼in plate	144/10	155/–	168/–	201/–
HOT WATER CYLINDERS—				
Riveted, with handhole and ring	20	25	33	39
12 gauge	158/–	173/–	192/–	208/–
¼in plate	172/–	190/–	212/–	228/–

PLUMBER'S BRASSWORK, etc.

	Each			
	¾in	1in	1¼in	1½in
Boiler screws, single nut	1/6½	1/11½	3/3½	5/7
Do., double nut	2/2	2/9	5/2½	7/2
Cap and lining	1/1½	1/6½	1/10½	2/0½
Plumber's unions ..	2/4	2/11	4/–	7/1
Ball valves, screwed iron	13/7	21/1	—	—
Do., fly nut and union ..	14/7	22/7	—	—
Bib valves, crutch top screwed iron	8/3	12/3	—	—
Do., but screwed boss ..	9/5	13/10	—	—
Stop valves, screwed iron ..	7/3	10/–	—	—
Do., screwed iron and union	9/–	13/3	27/–	—
Do., double union ..	10/3	14/6	29/3	—
Waste, plug chain and stay	—	—	8/–	9/–
	1¼in	1½in	2in	4in
Caps and screws ..	3/3	4/2	6/–	—
Sleeves, long	—	—	7/4	10/7
Do., short	—	4/–	4/2	8/4
Thimble	—	3/9	4/6	10/6
Full way gate valves, hot pressed	20/6	28/6	—	—
		1½in	1½in	2in
Lead 7lb P. trap		6/7	8/7	12/–
Do., S. trap		8/1	10/8	14/11
Lead 6lb P. traps with 3in seal		7/4	8/10	—
Do., but S. traps, do.		9/1	11/2	—

Wire balloon guards, copper, 2in, 3/3; 4in 3/6
Do., galvanized iron, 2in 1/11; 4in 2/1
Hair felt 34in by 30in, 24oz, 6/– sheet
Boss white jointing compound, 2/3lb
Gasket 1/10½lb. Hemp, 9/–lb.

COPPER TUBES—Extract from B.S. 659/1955—

Nominal bore	Internal work (semi-hard). Outside diameter	Gauge	Weight lb per ft	3cwt lots Price per lb pence	Price per ft pence
¼in	0.596	19	0.27	42¾	11.55
⅜in	0.846	19	0.39	41	15.99
1in	1.112	18	0.62	39½	24.49
1¼in	1.362	18	0.76	38⅞	29.55
1½in	1.612	18	0.91	38⅞	35.39
2in	2.128	17	1.40	40½	56.70

CAPILLARY TYPE CONNECTIONS—

Add for delivery and packing on orders under £10.
All ends copper to copper

Each	¾in	⅞in	1in	1¼in	1½in	2in
Straight	1/11	2/8½	4/3	5/6	7/6	10/9
Elbow	3/10	4/9½	6/4	8/1	13/-	26/6
Tees	4/7½	5/5	8/7½	12/9	18/–	26/6
Brackets (Brass) ..	2/–	2/4	2/7	—	—	—

GLASS

	Per foot superficial 24oz	26oz	32oz
English, flat drawn sheet glass cut to sizes in squares	10¾*d*	1/1½	1/5½
Figured rolled, white cut to sizes, in squares (⅛in) Group 1 / Group 2	1/1½*d* Per ft super		
	1/4½	do.	
Ditto, but in standard tints	1/10	do.	
⅛in Rolled, cut to size, in squares	1/1½*d*	do.	
¼in rough cast do.	1/5½	do.	
¼in do. wired do.	1/9½	do.	
Georgian wired do.	1/9½	do.	
Fluted (No. 4) do.	1/11½	do.	
⅛in Reeded	2/3	do.	
⅛in Reedlyte (narrow and broad) do. ..	1/6	do.	
Spotlyte do.	1/6	do.	
⅛in Calorex Cast do.	1/8	do.	
Flashed Opal (15/18oz) up to 1ft super ..	4/2	do.	
do. do. over 1ft super ..	5/–	do.	
Pot Opal (15/18oz) up to 1ft super ..	4/2	do.	
do. do. over 1 ft super ..	5/–	do.	

POLISHED PLATE GLASS (Tariff) Cut to sizes.

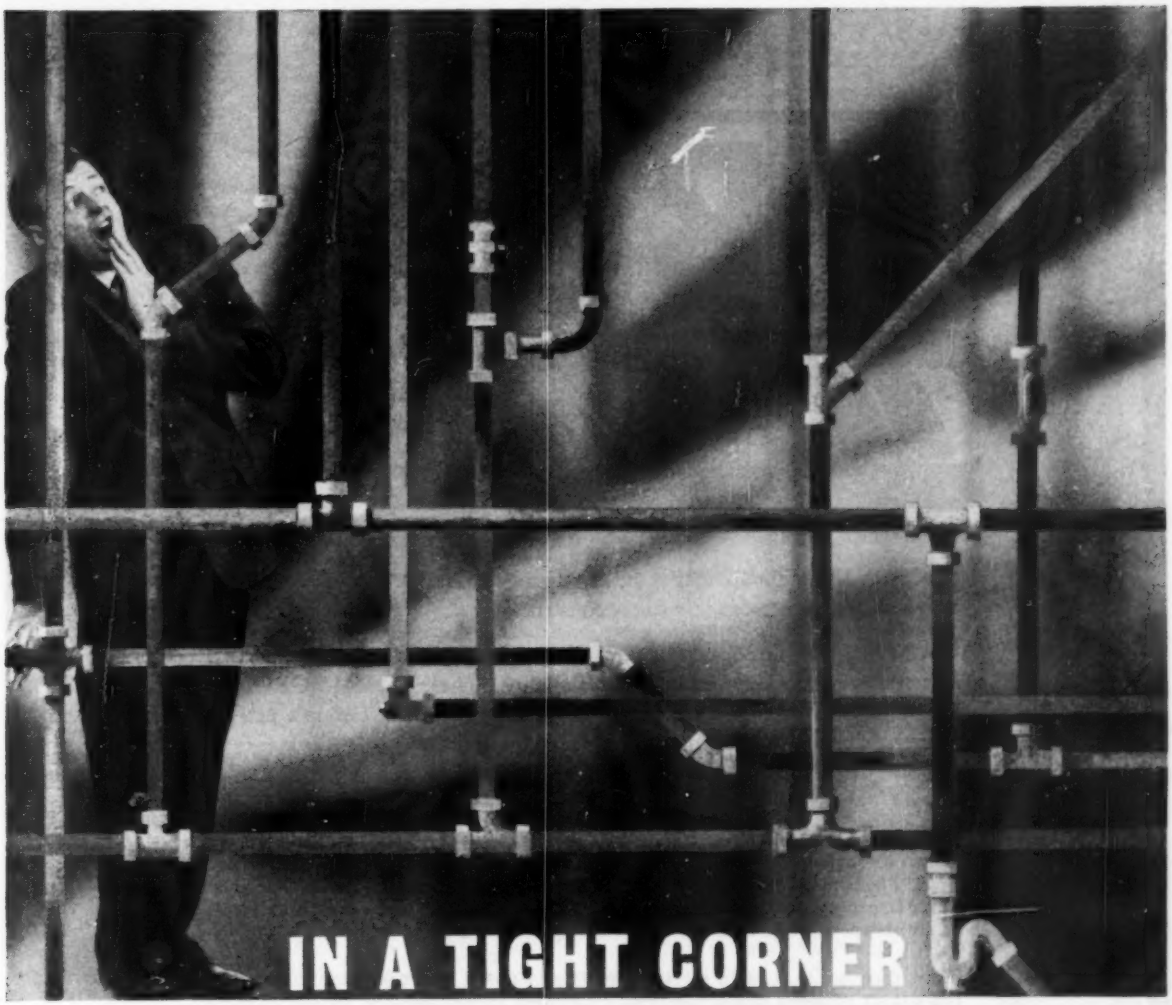
Ordinary substance ⅛in and ¼in thick.

Per Superficial ft	General Glazing
In plates not exceeding:	
2ft super in each	4/7
5ft do.	5/7
45ft do. (unless extra sizes)	6/9
100ft do. (do.)	7/4

Extra sizes, i.e., Plates exceeding 100ft super or 160in one way or 96in both ways at higher prices.

DECORATING MATERIAL

	Price	Unit
Aluminium Paint	41/–	Gallon
Distemper, ceiling	38/–	Cwt
Distemper, washable	120/–	do.
Enamel	60/–	Gallon
Gold Metallic Paint	79/–	do.
Heat Resisting Paint	50/–	do.
Japan, black	35/–	do.
Knotting	50/–	do.
Linseed Oil	15/–	do.
Boiled, do.	15/9	do.
Proprietary Paints (good class)—		
Finishing	57/6	do.
Priming	62/–	do.
Undercoat	57/–	do.
Paperhanger's Paste	36/6	Cwt
Petrifying liquid	10/–	Gallon
Putty	52/6	Cwt
Size	12/3	Firkin
Terebine	37/–	Gallon
Turpentine substitute	6/5	do.
Varnish, oak, copal inside use	45/–	do.
Do., do., outside use	45/–	do.
Do., white, eggshell, flat	54/6	do.
White lead mixed paint	66/6	do.
White lead	167/6	Cwt
Whiting	13/3	do.



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There are over 22,000 different types and sizes of KONTITE fittings, each designed to make the job easier, better, quicker, cheaper. KONTITE fittings make a perfect joint at the turn of a spanner. Precision-engineered from high quality materials, they are made in gunmetal to resist corrosion and dezincification.
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U.A.M.... The initials that stand for a range of building products second-to-none, every one of which leads to faster, less costly construction.

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U.A.M.'s UNIVERSAL ASBESTOS CEMENT FABRICATIONS are known throughout the world and are used today in buildings of all kinds, large and small. The famous insulated Sandwich Construction was pioneered and developed by U.A.M. to meet a universal need to suit climatic conditions of every kind. And there's an entirely new product: UBESTO, the fireproof insulation board.

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Next there is **U.A.M.'s UNILUX TRANSLUCENT ROOF SHEETING**—ideal for natural lighting. This latest development of the Group's pioneering effort is made from polyester resins and glass fibre to give roof and roof lights in one product—a durable shatter-proof, weather-proof product, available in a wide range of permanently attractive colours.

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ASSOCIATED COMPANIES AT HOME AND OVERSEAS

TOLPITS · WATFORD · HERTFORDSHIRE · WATFORD 34551

MEMBERS OF THE U A M GROUP OF COMPANIES

CURRENT MEASURED RATES (LONDON)

These apply to new work of normal character and some size. These rates are for time and materials only and carry 10 per cent in excess, so the appropriate essential on-costs should be added. The basis cost of material used in the calculation of these prices is taken from the foregoing tables which carried up to September 2, 1959

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ESSENTIAL ON-COSTS

Fees payable to L.C.C. for District Surveyor:

The new buildings of ordinary construction not exceeding 5,000 cubic feet	£3
Over 5,000 cubic feet for every extra 1,000 cubic feet up to 1,000 cubic feet add	4/-
Buildings over four storeys add 3*d* per 1,000 cubic feet extra for each storey up to eight	3*d*

ALTERATIONS AND ADDITIONS

Up to £100 cost		£3
Over £100 up to £1,000.—	Per £100 cost	15/-
Over £1,000 up to £5,000.—	Ditto	5/-
Over £5,000	Ditto	3/-
Public buildings add 50%		
Steel framed or R.C. buildings.—See L.C.C. (General Powers Act 1955) also fees in respect of means of escape in case of fire.		

Allowance to cover National Insurances, Holidays with Pay and Public Holidays, Welfare, Third Party Risk, Travelling and Guaranteed Week is made in the rates attached to the items.	
Allow for Fire Insurance	1/6%
Allow for Water for use on the works and apparatus	5/-%
Allow for hoarding, or similar licences in City of London say	£10
Do. under Borough Councils per each month	say 2/6
Allow for Office, Fire, Attendance on C. of W., etc. p. week say	30/-

ADMINISTRATION AND CONTROL

Percentage costs on normal contracts in accordance with Builders Turnover per Annum see appropriate column hereunder:

	Turnover in Thousands			
Place	25	50	75	100
At depot	13%	9%	7%	6%
On job	6%	5½%	4½%	4%

SPOT ITEMS AND DEMOLITION, ETC.

	Per ft run
Hoarding erected and removed	20/-
Planked gangway with handrail, etc. do.	10/-
Proper gantry do.	78/-
Sleeper roadways	16/6
Needling, strutting and shoring including all labours and use and waste in erection and removal	Per ft cube 20/-

ALTERATION-DEMOLITION—	1 Brick	1½ Brick	2 Brick	Per yard cube
	(Per ft super)			
Cutting out cement concrete or brickwork in small quantities	1/3	2/6	3/7	64/-
Do. if either in very small quantities or reinforced	2/2	4/1	6/-	95/-
Debris into baskets and removed from inside to outside of bldg.	3½*d*	7*d*	9*d*	14/-

SCAFFOLDING (Avg. 45ft high) Per yard superficial	Period 1 month	3 months	5 months
Putlog type—4ft 6in lift	7/2	9/7	12/5
Do. —6ft 0in do.	5/1	7/4	9/5
Independent type—4ft 6in lift	9/5	13/4	17/2
Do. —6ft 0in do.	6/7	9/6	11/10

EXCAVATION Per Yard Cube *By hand*	Common Soil	Loamy Clay	Gravel or Clay	Rock or similar
Reducing levels	7/-	8/4	9/9	64/3
Surface trench not exceeding 5ft deep	14/1	16/10	22/5	79/10
Do. from 5ft to 10ft	25/9	28/11	34/7	87/2
Do. from 10ft to 15ft	29/3	34/10	40/11	95/4
Fill in and ram	5/9	6/4	6/4	6/2
Barrowing 25yd	3/3	3/7	3/7	4/2
Load vehicles and tip 8 miles away	17/9	17/9	18/9	19/7

PLANK AND STRUT	To 5ft deep	5 to 10ft deep	10 to 15ft deep
To trenches, in normal ground			
Per Ft Super	7*d*	8½*d*	10*d*

CONCRETE 1½in Ballast Aggregate	Per yard cube
1 : 3 : 6 Cement concrete in foundations	80/-
Do. around grillages	83/-

REINFORCED CONCRETE

1 : 2 : 4—¾in concrete, worked around reinforcement, between formwork in the following (at various levels):—	Per cubic yard
Foundations and surface beds	89/9
Walls, 12in thick or more	96/-

Sectional inches	Lintols and beams	Columns and casings	Braces and projections	
Up to 36	4/10	5/-	5/2	Per cubic ft
36 to 72	4/9	4/11	5/1	do.
72 to 144	4/8	4/10	5/-	do.
over 144	4/6	4/8	4/10	do.
Walls 6in thick			18/-	Per super yd
Do. 9in thick			29/1	do.
Suspended floors average 6in thick			19/8	do.

REINFORCING RODS (round) bent and placed. (Ex Mills)— Per cwt	¼in	⅜in	½in	⅝ to 1in
In floors and beams	92/-	80/-	75/9	67/6
In walls	98/-	85/-	79/9	70/6
In columns	105/6	90/3	81/-	73/9

FORMWORK and Supports (4 times use)— Floor soffits	Beams	Walls	Columns
20/3 per yard	3/-	2/8	2/8 per super ft

BRICKWORK

BRICKWORK per YARD superficial reduced to ONE BRICK in thickness (scaffold to add)—	In 1 : 3 cement mortar
Flettons or other similar *at* 118/- per 1,000	42/-
Mild Stocks or do., *at* 174/- per 1,000	57/9
Second Stocks or do., *at* 329/6 per 1,000	66/-
Southwater engineering or similar bricks, *at* 400/6 per 1,000	78/-
Blue Staffordshire wire cut *at* 542/6 per 1,000	94/3
Deduct if 1 : 1 : 6 Cement-Lime mortar is used in lieu of 1 : 3 Portland Cement mortar	2*d*
Add if brickwork commences above ground level	4/9
Do. if in backing to masonry including cutting and waste for bonding	3/10
Do. If circular-on-plan	9/-
Do. If in underpinning	9/-

BRICKWORK IN THICKNESS NOT REDUCED— Per yard superficial	Brick, on edge walls	Half-Brick walls	1 Brick finished fair both sides	11in Hollow with 2in cavity and G.I. TIES
In Flettons or similar	18/3	23/4	43/1	49/3
In second stocks or do.	31/-	41/-	73/-	72/-
Add: for pointing as work proceeds, per side	1/9	1/11	1/9	1/9
Thickness to old walls, including cutting, toothing and bonding to same an average total thickness of ½ brick	Fletton 57/-	Stock 72/-		Per yd super
Do. all as last but an average total thickness of 1½ bricks	78/-	102/6		do.

WALLS BUILT IN SUPERIOR BRICKS— In 1 : 3 Cement mortar, fair faced and pointed on both sides as the work proceeds:—	Half-Brick	One Brick	
In first quality Stocks at 355/6	44/-	73/-	Per yd super
In red facings at 330/-	38/6	67/9	do.
In blue pressed facings at 604/-	60/-	104/9	do.

GENERAL AND SUNDRY			
Cut tooth and bond new brickwork to old			5/9 per ft
Damp proof course, double slate, horizontal			4/9 super
Do., as last, but vertical			5/9 do.
Do., bitumen, Hessian base, horizontal			1/- do.
Frames, bed and point in cement mortar, one side 4½*d* per ft run			
Window board of 6in by 6in by ¾in rounded on edge quarry tiles, bedded, pointed, cut and fitted			4/3 do.
Terra-cotta air bricks built in and pointed, including flue	9in by 6in 6/6		9in by 9in 11/6 each
Chimney pots, plain red, set and flaunched in cement mortar	1ft high 17/-		2ft high 24/- each
Metal windows, assembled, hoisted and fixed, lugs cut and pinned and frames bedded and pointed one side in cement mortar	Up to 5ft super 15/2	10ft to 20ft super 28/5	5ft to 10ft super 18/9 each 20ft to 40ft super 47/- each
Leaving holes through walls for pipes and afterwards making good	Small pipes 3*d* per in in depth		Large pipes 6*d* per in in depth
Cutting do., and afterwards do.	11*d* do.		2/- do.
Cut mortices in brickwork or concrete for bolts or dowels and run in with cement grout	1/3 per in in depth, each		
Holdfasts of stout iron hoop bent, holed and screwed to frame and built in	1/7 each		

MEASURED RATES—*Continued*

BRICKWORK—*Continued*

FACING—

Extra only over common brickwork (118/- per 1,000) for facing with superior bricks in *Flemish bond* and pointing as the work proceeds.

Rustic Flettons (150/-)	4/2 per yd super
White (220/-)	9/9 do.
First Stocks (355/-)	19/8 do.
Reds (350/-)	19/3 do.
Blue pressed (604/-)	38/3 do.

If built in English bond, *Add* 12½% to above.
If do., half-brick stretcher bond, *Less* 25% off above.

COPING—

All labour and material in forming brick-on-edge coping with two course of roofing tiles under and cement weather fillets on both sides, built in cement and pointed as the work proceeds.

Per ft run	9in thick	14in thick
In picked Flettons	6/3	8/5
In first quality Stocks	8/-	12/-
In red facings	7/5	11/11

Plumbing angles	2*d* per ft run
Fair cutting	1/- do.
Fair rake cutting	1/7 do.
Fair circular cutting	1/7 do.
Fair squint or birdsmouth	1/11 do.

ARCHES

Extra over Fletton brickwork for forming window head with red facing bricks set on end and with 4½in soffits and pointing	ft run 3/9
Do. for rubbed and gauged flat arch in red rubbers set in putty with fine joints	ft super 19/-

PARTITIONS

(75 yards)	Per yd super— 2in	2½in	3in
Concrete slab partitions in cement mortar	11/5	13/8	14/8
Hollow clay do.	13/5	15/6	18/-
Cutting and bonding at angles, intersections and ends	5*d* ft run		

PAVING	1in	1½in	1½in
Grano trowelled gauge 5 : 2	8/6	9/6	10/8 yd super
1 by 5in skirting, square top and cove bottom			2/10 ft run
½in by 6in red quarry tile paving			32/- yd super
½in by 6in do. skirting			1/11 ft run
Jointless flooring, ½in thick			20/- yd super

ASPHALT (normal conditions for 200 yd super and upwards)

½in pitch mastic floor in one coat on felt underlay on prepared concrete base — B.S. 1450/48 — B.S. 1375/47

		Brown	Red
Per yd super	13/6	15/-	16/6
	Unit	Mastic B.S.988	Natural Rock B.S.S.1162/44
½in in two thicknesses on felt underlay on prepared concrete base	yd super	14/3	18/6
Do. in narrow widths	ft super	2/-	2/7
½in skirting 6in high, angle fillet at bottom splayed and turned in at top	ft run	2/4	2/7
External angles	each	6*d*	6*d*
Internal do.	each	10*d*	10*d*
Tanking or Damp Course		B.S.1097/43	B.S.1418/47
Vertical in two thicknesses	yd super	19/6	24/6
½in horizontal do.	yd super	13/-	18/9
Vertical in three thicknesses	yd super	26/6	33/-
1½in horizontal do.	yd super	19/-	27/6
Labour rounded external angle	per ft run	6*d*	6*d*
Do. internal angle fillet	per ft run	10*d*	11*d*
Do. double do.	per ft run	1/8	1/8
Collars to small pipes	each	3/6	4/-
Do. to large pipes	each	6/9	7/6

DRAINAGE

Per lineal yd	
Excavate trench, and plank and strut to sides, consolidate bottom to fall, return, fill and ram earth after drain is laid and load and remove surplus. In ordinary ground—moderately firm. (By hand)	1ft in depth 5/10
	2 do. 9/11
	3 do. 22/9
	4 do. 29/7
	5 do. 36/6
	6 do. 54/11
	7 do. 67/6
	8 do. 80/-
	9 do. 92/6
	10 do. 104/11
	11 do. 128/1
	12 do. 144/11

Portland cement concrete bed under pipes and benching up on both sides—6in thick	(1 : 6) drain 4in 18in wide 8/6	Per yd run 6in 20in wide 10/-	9in 23in wide 12/3

SALT GLAZED SANITARY DRAIN PIPES
and lay and joint with Yarn and Cement Mortar in trench.

Quality	Quantity	Per ft run 4in	6in	9in
"Best"	2ton or more	3/1	4/7	7/7
	50 pieces and over	3/5	5/3	8/6
	under 50 pieces	3/6	5/4	8/10
"Best Tested"	2ton or more	3/9	5/10	9/2½
	50 pieces and over	4/2	6/3	10/2
	under 50 pieces	4/3	6/5	10/10
"British Standard"	2ton or more	3/3	4/10	8/-
	50 pieces and over	3/8	5/6	9/-
	under 50 pieces	3/9	5/7	9/4
"British Standard Tested"	2ton or more	3/10	5/9	9/7
	50 pieces and over	4/5	6/8	11/-
	under 50 pieces	4/6	6/9	11/5
Extra for bends "Best"—Contained in 2ton lots		4/2	6/3	16/6
Extra for junction "Best"—4in on 4in—6in on 6in—9in on 9in	do.	6/6	9/9	27/-½

IRON DRAIN PIPES—

Heavy cast iron socketed and laying and jointing in molten lead—	Per ft run 4in	6in
In main runs	14/5	20/2
In branches	16/6	23/4
	each	
Extra over last for bends and extra joint	30/2	66/1
Do. on do. for junctions and extra joint	45/4	86/-
Cast-iron gulley with 10½ inlet and 4in outlet, composed of hooper and trap, and 9in extension piece and 10½in grating, and jointing all together, and jointing to drain and surrounding in concrete	183/-	—
Do. rain water, shoe with vertical inlet and inspection cover, and joint up and embed	85/9	143/6

MANHOLE SUNDRIES—		4in	6in
Salt glazed straight half-round main channels	each	6/-	8/7
Do. curved	do.	14/-	20/-
Do. three-quarter section splayed channel bends (Barrons or similar)	do.	18/-	26/6
Heavy manhole steps galvanized	do.	9/9	—
Fix only manhole covers	do.	11/6	—
4in Mica flap, brass faced, f.a.i. valves and fix with molten lead joint	do.	41/-	—

ROOFER

CORRUGATED ASBESTOS SHEETS

P.C. 8/3½ per super yd including side and end laps and fixing to wood	162/6 per square
Eaves filler pieces	2/6 ft run
Adjustable ridge	4/9 do.
Barge boards	3/4 do.
Plain roofing tiles, machine made, sand faced, 4in gauge nailed every 4th course with 1½in galvanized nails, to battens (measured separately)	263/- per square
Extra over last for top edge or abutment cutting	1/4 ft run
Do. for double course at eaves	2/5 do.
Do. for verges, undercloak, bed and point	3/9 do.
Do. Valley tiles including cutting and waste on both sides	11/3 do.
Do. Bonnet hips and do. bed and point	11/9 do.
Half-round ridge and bed and point	3/6 do.
Fixing soakers	' '8 dozen

Bituminous felt roofing in two layers, laid breaking joint and bedded with hot mastic and finished with fine dry grit	12/6 yd
Do. but in one layer only	9/- super

WELSH SLATING — 3in lap, 2 zinc nails to each slate	Per square 16"+10"	18"+10"	20"+10"
	341/-	356/-	414/-

Additional labours	Per ft lineal 1/9	1/10	2/2
At tops, verges and abutments—straight			
Do. —raking	2/7	2/9	3/1
At hips and valleys (each side)	2/7	2/9	3/1
At eaves, double course	3/6	3/8	4/2
Do. to falls	5/3	5/4	6/3

Take **ASTOS** the dampcourse

—for permanence, for a toughness that withstands vibration and normal foundation settlement, for easy identification on site. ASTOS, Standard or lead-lined, the original asbestos/bitumen dampcourse, complies with the British Standard requirements (B.S. No. 743, 1951). 24 ft. rolls, in wall widths up to 36 in. Standard (Type 5C) 7-lb. per sq. yd. Lead-lined (Type 5F) 9¼-lb. per sq. yd.



Take Zylex Slaters' Felt as a secondary roof under tiles or slates, to prevent damage due to roof defects, to reduce heat loss. Reinforced Zylex for open rafters, Standard for boarded roofs, and Aluminium Foil Surfaced for even greater reduction of heat loss.
Take ASTOS and ZYLEX for perfect protection and insulation. Specify them together.

For technical literature write to:
THE RUBEROID COMPANY LIMITED 94 COMMONWEALTH HOUSE · 1-19 NEW OXFORD STREET · LONDON WC1

ZA 451

The cheapest central heating there is — SOLID FUEL

Cheapest Running Costs. A new generation of house hunters is insisting on central heating. They regard it as just as much of an essential as the water supply. It's as well then that *solid fuel* central heating has such rockbottom running costs. Look at the figures on the right: *no other fuel* can compare for cheapness with solid fuel.

Low Capital Costs. It's not an expensive business installing a *solid fuel* central heating system. In fact, the recently developed small-pipe system, so perfect for smaller or medium-sized houses or bungalows, is of such low capital cost that central heating can now be put within the reach of a much larger section of the public than ever before. Special 5-year credit facilities are now available.

For Architects. "Central Heating for Houses." This 120-page survey of solid fuel central heating outlines the various systems available, from the open-fire-and-back-boiler to the latest small-pipe system. Copies 2/6 each. Write to the Coal Utilisation Council, 3 Upper Belgrave Street, London, S.W.1, for this booklet or any of the following publications: List of Approved Domestic Solid Fuel Appliances, Warmer Homes with Solid Fuel, Fuel Stores for Houses and Flats, Building for Warmth—all free; and for 1/6—Correct Fixing of Domestic Solid Fuel Appliances.



Compare the Running Costs! This table shows typical comparative costs for different fuels. These have been calculated for a 3 bedroom house of some 1000—1,200 square feet and are those of an *average* week's heating and hot water supply during the 30-week heating season. Fuel prices vary, of course, and local costs can easily be calculated from those given. If you would like the data on which these figures are based, write to the Coal Utilisation Council, 3 Upper Belgrave Street. London. S.W.1.

COKE *Sectional Boiler*	**£9 ton**	**21/-**
ANTHRACITE *Gravity Feed Boiler*	**£12 ton**	**20/-**
GAS	**1/5d therm**	**33/1d***
ELECTRICITY	**1d unit**	**45/7d***
OIL *Sectional Boiler Conversion*	**1/5d gallon**	**31/5d**

Gas and Electricity costs exclude Standing Charge

MEASURED RATES—*continued*

FLOORS AND FLATS

Hollow tile *in situ* or pre-cast units hoisted, bedded and fixed—

Superimposed load in lb per ft super	Span 12ft	Span 16ft
50 ..	44/9	52/9
Per yd super 100 ..	47/-	59/-
150 ..	53/9	67/3

20lb has been allowed to cover dead load in surface, finish.

Fair edge to slabs	9*d* per ft run
Splay cutting and waste	1/9 do.

CARPENTER AND JOINER

SOFTWOOD CARCASSING—

Labour, materials, waste nails, hoisting and fixing ..	Plates 19/2	per ft cube Joists 20/8	Rafters 22/4	Trusses 25/6

FLOORING—

Per square—	¾in	1in	1¼in
Rough boarding	144/-	171/-	203/-
Softwood batten flooring, straight joints, splayed headings	146/6	167/6	206/-
Do. grooved and tongued	167/6	189/6	244/-

SKIRTING—

Per ft superficial—	¾in	1in
Wrot softwood moulded skirting with grounds and backings plugged ..	4/-	5/3
Mitres to do. .. 3*d* per sectional in.		
Fitted ends .. 2*d* do.		

SASHES, fanlights, casements, borrowed lights, etc.—

Per ft super—	Without bars	With bars (2ft sup. in each square)
2in softwood rebated, moulded and fixed	3/6	6/5
Add if fitted with beads	6*d*	1/6
Add if hanging on butts	3/- each	

WINDOWS, hung on lines—

Softwood cased frames, 1in inner and outer linings, 1¼in pulley stiles, 2in sashes, oak sill ..

Overall size of frames— Per ft super ..	6ft	21ft	32ft	44ft
Windows as described ..	21/6	12/-	9/-	7/-
Add if sashes in squares, about 2ft super in each	—	1/8	2/2	2/2
Extra for hanging sashes with lines, weights and axle pulleys	38/-	each 66/-	77/-	88/-

FINISHINGS TO OPENINGS—

Per ft super—	¾in	1in	1¼in	1½in
Softwood linings, tongued at angles and tongued to frame including grounds and backings	4/8	5/3	5/10	6/4
Add if crosstongued	8*d*	8*d*	8*d*	8*d*
Softwood wrot rounded on front edge and with tongue at back window board including groove in sill and bearers	3/10	4/4	5/-	5/6
Add for ends to last notched, returned and rounded	1/1	1/2	1/3	1/4

Per ft run—	Sectional area in in— 1	2	3	4	5	6
Softwood wrot and fixed in bearers, backings, grounds, fillets, and similar	4½*d*	7*d*	9½*d*	1/-	1/3	1/5
Add if in short lengths	2*d*	2*d*	2½*d*	2½*d*	3*d*	3*d*
„ if plugged to brickwork ..	6*d*	6*d*	6*d*	6*d*	6*d*	6*d*
„ if framed as in legs and bearers	3*d*	3*d*	4*d*	4*d*	6*d*	6*d*
„ if rebated or grooved or beaded	2*d*	2*d*	2*d*	2*d*	2*d*	2*d*
„ if chamfered or rounded edges				3*d*		
„ if moulded in architraves, capping, etc.				6*d*		

DOOR FRAMES—

Per sectional in—	Per ft run 6in	8in	10in	12in	13½in
Softwood, wrot, reb. & rdd. ..	2/3	2/8	3/2	3/6	3/10

DOORS—Per ft super

2in Softwood square framed and flat panels, both sides, on butts ..	Number of panels— 1 6/-	2 6/10	3 7/5	4 8/-	5 8/4	6 8/10
1½in do.	5/4	6/2	6/7	7/2	7/7	8/1
Add for each side moulded	3*d*	4*d*	5*d*	6*d*	7*d*	8*d*
Add B.S. flush panelled	1/6	1/6	1/6½	1/7	1/8	1/8

Per ft super—	¾in	1in	1¼in	1½in
In shelves, table tops, wrot and fixed	2/5	2/9	3/4	3/9
Do. in divisions and ends framed ..	2/9	3/1	3/8	4/3
Add if crosstongued	6*d*	6*d*	6*d*	6*d*
Add if buttoned	6*d*	6*d*	6*d*	6*d*

SUNDRIES—Per ft run—

	In short lengths	In long lengths	Add for cups and screws
Glazing, beads mitred around and fixed with beads	6*d*	4*d*	2*d*
Rounded heel or hollow		4*d*	
Tongued and grooved angle ..		6*d*	
Glue blocking		6*d*	
Mitres	3*d*	per sectional in	
Fitted ends	2*d*	do.	

STAIRCASE—

	Per ft super		
1¼in Softwood treads with moulded nosings 1in risers tongued both edges and glued, blocked and bracketed on and including two fir framed carriages	6/6		
Do. but in winders	8/-		
1¼in crosstongued landing on framed carriages	6/3		
2in moulded string	5/6		
2in do. ramped	14/-		
Ends framed to newel	10/-	each	
Tongued heading joints	6/-	do.	
Ends of treads and risers housed to string ..	3/6	do.	
Extra for curtail ends to steps, glued up and veneered riser and solid blocking	100/-	do.	
Balusters about 2ft 9in long, square and framed each end .. .. each	2/6	1in 3/1	1¼in 3/6
3½in by 3½in square newel, framed ..	4/-	per ft run	
African mahogany moulded 3in by 2in hand-rail. (Joints below)	9/3		
Do. ramped 18in girth (do.)	54/-	each	
Do. wreathed do. (do.)	160/-	do.	
Joint or framed ends	12/-	do.	

FIXING ONLY IRONMONGERY

	To deal	To hardboard
Barrel bolts	1/10	2/9 each
Flush bolts	5/6	4/10 do.
Sash fasteners	2/6	3/- do.
Rim locks and furniture	4/6	6/- do.
Mortice locks and do.	7/6	17/9 do.
Cupboard locks	2/9	3/5 do.
Casement fasteners	2/3	2/9 do.
Do. stays	2/3	2/9 do.
Grip handles	2/7	3/5 do.
Spring catches	2/3	2/9 do.
Cabin hooks	1/10	2/5 do.
Floor springs including oil	49/-	63/- do.
Overhead springs	14/7	20/- do.
Springhinges	14/-	19/- do.

SMITH AND FOUNDER

Basis framed steel joists and hoist and fix	81/6 per cwt
Do. but in compound girders ..	91/6 do.
Do. but in stanchions	93/6 do.
Trusses	130/6 do.
Additional cost per cwt over basic sections for following R.S.J.s 9in by 7in, 10in by 8in, 12in by 8in, 14in by 8in, 16in by 8in, 18in by 6in, 18in by 7in, 20in by 6½in, 20in by 7½in	8*d* per cwt
22in by 7in, 1/1 cwt 4in by 3in	1/10 do.
5in by 3in, 5in by 2½in	2/2½ do.
6in by 3in, 24in by 7½in	2/6 do.
3in by 3in, 2/9 cwt 4½in by 1½in ..	4/- do.
3in by 1½in	4/4 do.
Cleats, brackets, packing pieces, etc., in connections, including rivets and bolts	174/- do.
Forged straps	132/- do.
Wrot iron balustrade	175/- do.

RAINWATER GOODS—

	Per ft lineal 2in	3in	4in
Round cast-iron pipe with socketed joints caulked with red lead and tow and fixing with pipe nails and gas barrel distance pieces to plugs in brickwork	4/5	4/10	6/2
Extra for shoes .. .. .. each	5/7	7/2	10/3
Do. junctions .. .. do.	8/5	10/9	15/7
Do. bends .. .. .. do.	6/7	8/6	10/10

RAINWATER GUTTERS Per ft. run—	4in	5in	6in
Half round CI gutters jointed in red lead and bolted and fixed on iron brackets	3/11	4/8	5/9
Ogee do. All as last	4/4	5/-	6/3
Extra for stop ends	3/2	3/10	4/-
Do. angles or outlets	5/6	7/-	8/4

MEASURED RATES—*continued*

PLUMBER

EXTERNAL—	Soakers	Flats	Flashings
4lb Milled Sheet lead per cwt	147/-	188/-	200/-

LEAD PIPES: running joints, etc.

Per ft run		½in	¾in	1in	1¼in	1½in	2in
Main	Fixed	4/5	6/0½	8/3	10/5½	13/5½	17/11
Service	with	3/11	5/3½	7/-	8/7	10/10½	14/2
Waste	hooks	2/9	3/10	5/-	7/4	7/11	10/1
Bends	each	—	—	—	1/9	3/-	8/-
Solder joints	do.	9/8	11/8	13/5	13/8	18/2	23/8
Union and joints	do.	13/10	16/9	20/6	26/2	—	—
Stop valve and *do.*	do.	27/10	37/10	52/-	82/6	—	—
Bib valve and *do.*	do.	19/4	26/7	—	—	—	—
Ball valve and *do.*	do.	26/4	36/-	51/9	79/-	—	—
Sleeve and *do.*	do.	—	—	—	—	21/3	29/3

COPPER TUBES

	½in	¾in	1in	1¼in	1½in	2in
Tubes per ft run ..	2/9½	3/4½	4/5½	5/4	6/2	8/10½
Couplings: straight each	3/7	4/4½	6/7	8/6	11/-	15/-
Do. Elbows each ..	5/8	6/8½	8/10	11/3	16/9	32/4
Do. Tees do.	8/3	9/7	13/10	19/-	25/6	32/-
Do. Cisterns do. ..	4/8	6/3	8/4	10/6	14/4	18/11
Stop cocks do. ..	24/4	35/4	63/-	104/6	159/-	240/-

BLACK TUBING (Heavy) fixed with pipe brackets

	½in	¾in	1in	1¼in	1½in	2in
Tubes, per ft run ...	2/4	2/8	3/3	4/1	4/9	6/10
Bends and fix, each ..	5/1	5/10	7/10	10/5	12/1	18/3
Tees and do.	5/7	6/7	7/11	10/-	12/1	17/9
Fire bends	2/-	2/6	2/9	3/-	4/-	7/3

Coated iron (M) weight L.C.C. soil and waste fixed with nails and distance pieces and molten lead joints .. 2in 5/9, 4in 8/4 ft run
Extra only for bends and joint .. 14/9, 23/8 each
Do. junctions and joints .. .. 16/4, 29/9 do.
Do. cleaning doors .. .. .. 16/-, 17/6 do.
Domical wire guards .. .. .. 2/6, 2/9 do.

PLASTERER—

			yd super
Lime and hair	¾in	Render and set	7/3
Do.	1½in	Do. float and set	10/6
Sirapite	½in	Skimming coat	4/-
Do.	⅝in	Render and set	8/2
Do.	⅞in	Render, float and set	10/2
Portland	½in	Backing coat	4/10
Do.	⅝in	Plain face	8/3
Do.	¾in	Floor screed	5/-
Keenes	½in	Skimming coat	5/3
Dubbing	½in	Thick or less	3/-
Metal Lathing	⅜in	mesh by 24 Gauge	7/-

6in by 6in by ¼in Earthenware Plain Glazed Tiles, in fair quantity white, and setting (on prepared screed) .. 45/-
Rounded edge. Extra over last .. .. .. 6*d* per ft run
Angles in do. .. .. 6*d* each
Cutting and fitting. Around pipes or clips .. 1/6 do.
Narrow widths. 3in to 6in wide. Add 75 per cent to plain surface.
Do. 6in to 12in do. Add 40 per cent to plain surface.
Sundry labours per ft lineal:—
Quirk 3*d*. Arris 4*d*. Fair edge 3*d*. Rounded edge 5*d*.
Flush bead 1/9.
Mouldings—6*d* per in girth.
Jointing new plastering to old 4*d*.

POLISHING

	Ft super	6" Girth Ft run
NEW WORK—		
Staining, bodying-in and French Polish	3/-	2/-
Staining and wax polishing on hardwood	1/6	1/-
OLD WORK—		
Cleaning down old work and repolish	1/4	—
Stripping, preparing and repolishing ..	3/4	2/3

INTERNAL PAINTING
With white lead base in common colours, with brushes.

	Knot stop and prime	Prime and paint once	Prime and paint twice	Add for each extra coat
ON WOOD—				
General surfaces	2/9½	5/7	8/-	2/4 yd super
Running lengths not exceeding 3in wide	4½*d*	8½*d*	1/-	3½*d* yd run
Do. 3in to 6in wide	5½*d*	11*d*	1/4	4½*d* do.
Do. 6in to 9in wide	9*d*	1/6	2/1	7½*d* do.
Do. 9in to 12in wide	11*d*	1/11	2/7	9½*d* do.
Sash square each side	5/5	10/3	14/11	4/4½ per do.
Do. in large squares	8/3	15/-	21/-	6/7 do.
Opening edges ..	7*d*	1/2	1/9	7*d* each
Casement frames each side	6*d*	1/-	1/4	5*d* yd run
Mullions or transoms do.	8*d*	1/5	2/-	7*d* do.

ON PLASTER—	One coat	Two coats	Three coats	
Paint on surfaces	3/1	5/10	8/3	per yd super
Do. on mouldings ..	3/5	6/5	9/2	do.
Do. on enrichment ..	6/2	11/8	16/6	do.
ON STEEL				
Paint on structural steel ..	2/5	4/7	6/10	do.
Do. on roof trusses ..	2/8	5/1	7/8	do.
Do. on metal windows measured over all on both sides, divided into squares	3/5	5/9	8/7	do.
Do. divided into large squares	2/10½	5/-	6/9	do.
Do. divided into extra large squares	2/5½	4/2	5/10	do.
Do. on opening edges ..	10*d*	1/6	2/-	each
Do. on rain water pipe ..	10*d*	1/6	2/2	yd run
Do. on do. gutter	1/3	2/8	3/7	do.
Do. on small pipe	3*d*	6*d*	10*d*	do.

GLAZING (to New Work)

Polished Plate Glass ordinary substance (about ¼in), glazing quality, in the following sizes, glazed complete—Per ft super
in plates not exceeding 2ft super in each 7/2
Do. 5ft do. 8/3
Do. (unless extra sizes) 45ft do. 9/7
Do.(unless extra sizes) 100ft do. 10/2
Add extra price for glazing with screw beads or clips 5*d* per ft super.
Do. if glazing bedded in washleather or velvet 9*d* per ft run.

SHEET GLASS, glazed, complete, per ft super, in new work: Ordinary quality clear, glazed to wood with putty:—

24oz as described		1/6½
26oz do.		1/9½
32oz do.		2/2
⅛ figured rolled, glazed to wood with putty	Group 1	1/9½
	Group 2	2/1½
Do. in standard tints	do.	2/7
No. 4 Fluted, glazed do. ..	do.	2/8½
⅛in Reeded (narrow, broad, etc.)	do.	3/0½
Reedlyte do.	do.	2/2½
Spotlyte do.	do.	2/2½
¼in Rough cast do		2/2½
¼in do. wired do.	do.	2/6
¼in Georgian Rough Cast do. ..	do.	2/6½

Add for glazing all as before but to steel to similar work as above, 1½*d* per superficial ft.

PAINTER AND DECORATOR

DISTEMPERING—In common colours, put on with brushes—
ON PREPARED SURFACE

per yd super—	1 coat (finish)	2 coats (undercoat and finish)	*Add* if required Sealing coat	Stippling
Ordinary distemper on flat surface of plaster ..	10*d*	1/6	6*d*	3*d*
Washable do. on do. of plaster	1/-	1/10	6*d*	3*d*
Add if in margins, narrow widths or panels ..	30%	30%	20%	50%
Add if on mouldings ..	50%	50%	45%	—
Add if on enrichments ..	160%	160%	115%	—

PAPERHANGING

Hanging only—	Per Piece—Lining	Pattern
On walls	7/6	9/-
On stairs	10/3	12/-
On ceilings	9/-	10/6

NEW & IMPROVED

Corrosion Resisting Cements

MANUFACTURED EXCLUSIVELY IN GREAT BRITAIN BY PRODORITE LTD.
COVERED BY WORLD PATENTS OWNED BY FARBWERKE HOECHST A.G.

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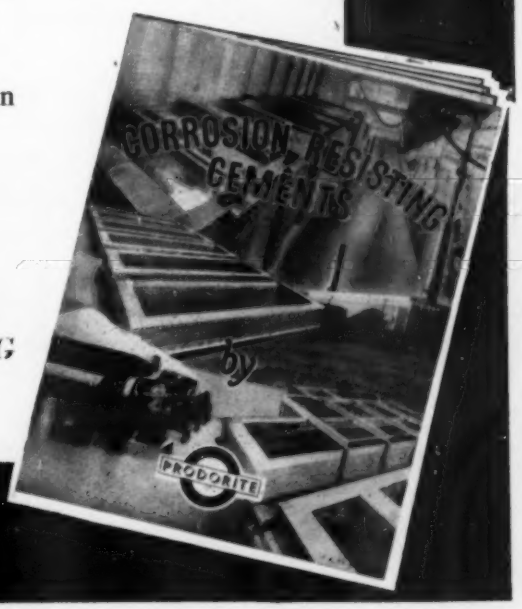
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with

★ *Improved Resistance*
★ *Greater Adhesion*
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For use on all types of corrosion resisting constructions

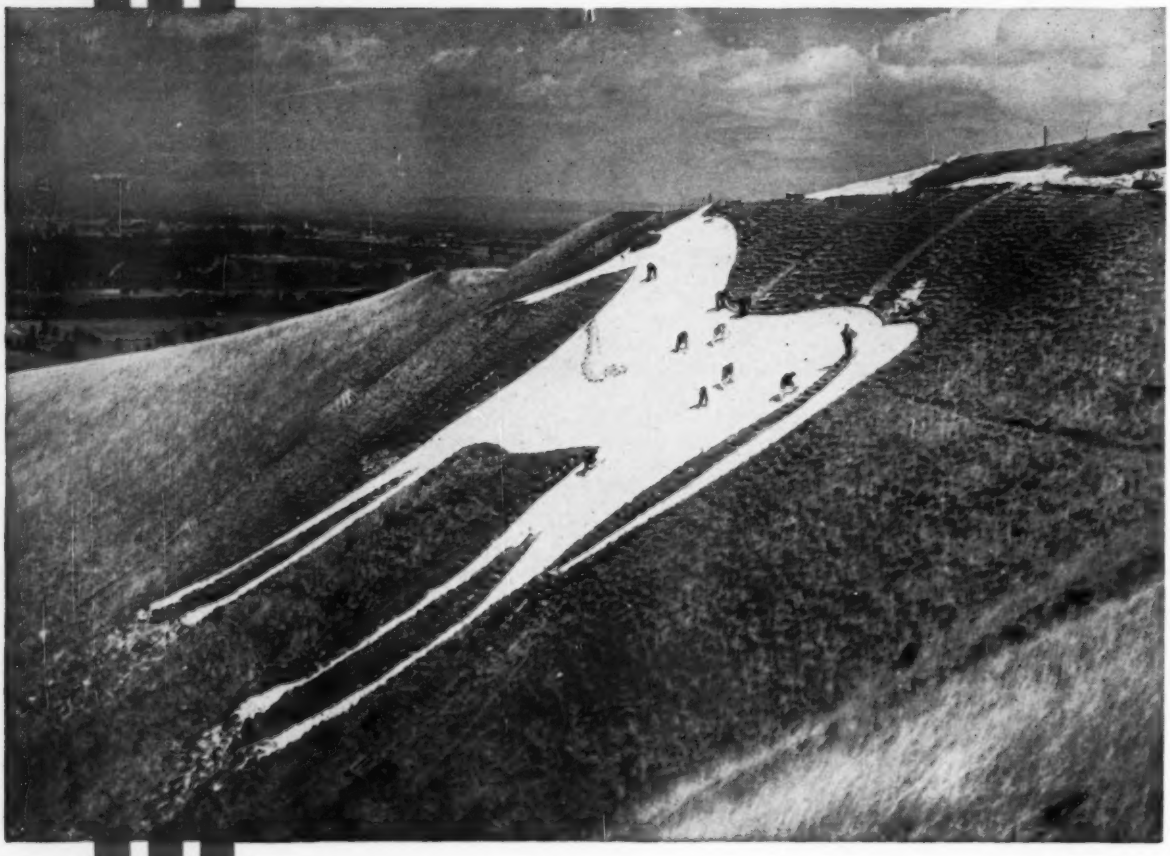
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ACID RESISTING FLOORING
CHANNELS, SUMPS etc.



PLEASE WRITE FOR BROCHURE ON OUR NEW RANGE OF CORROSION RESISTING CEMENTS

G

The White Horse of Westbury*



* When the Ministry of Works recently decided to re-surface the famous White Horse of Westbury, Tunnel White Portland Cement was used. This monument, which commemorates the victory of Alfred the Great over the Danes at Ethandune in the year 878, is now permanently white. The periodic re-cutting of the chalk is no longer necessary.

For full particulars of Tunnel White Portland Cement and our wide range of Coloured Cements please write to our head office.

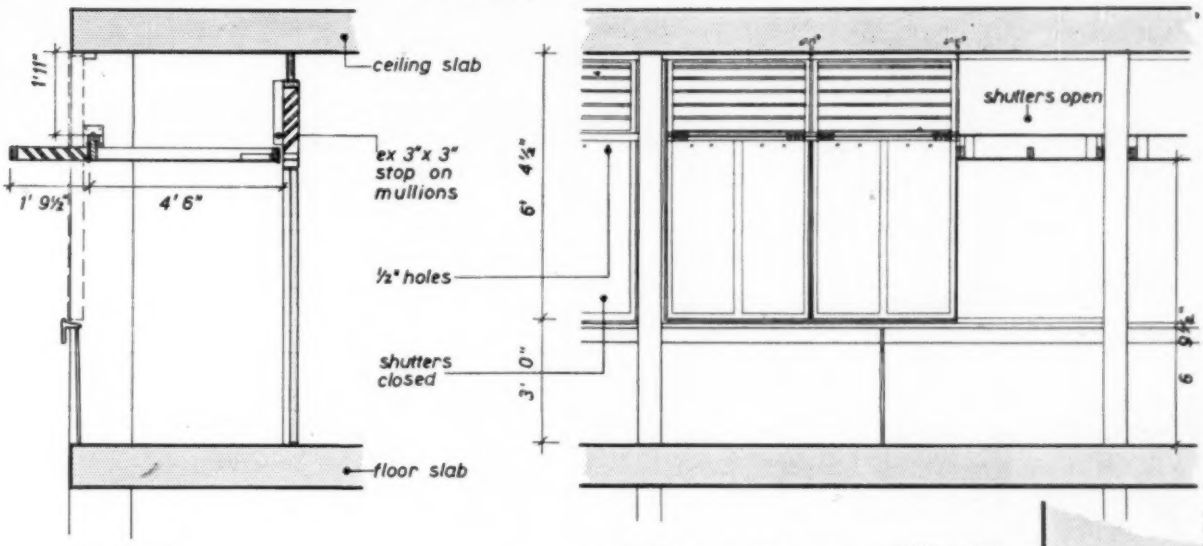
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TUNNEL WHITE CEMENT

A TUNNEL PRODUCT

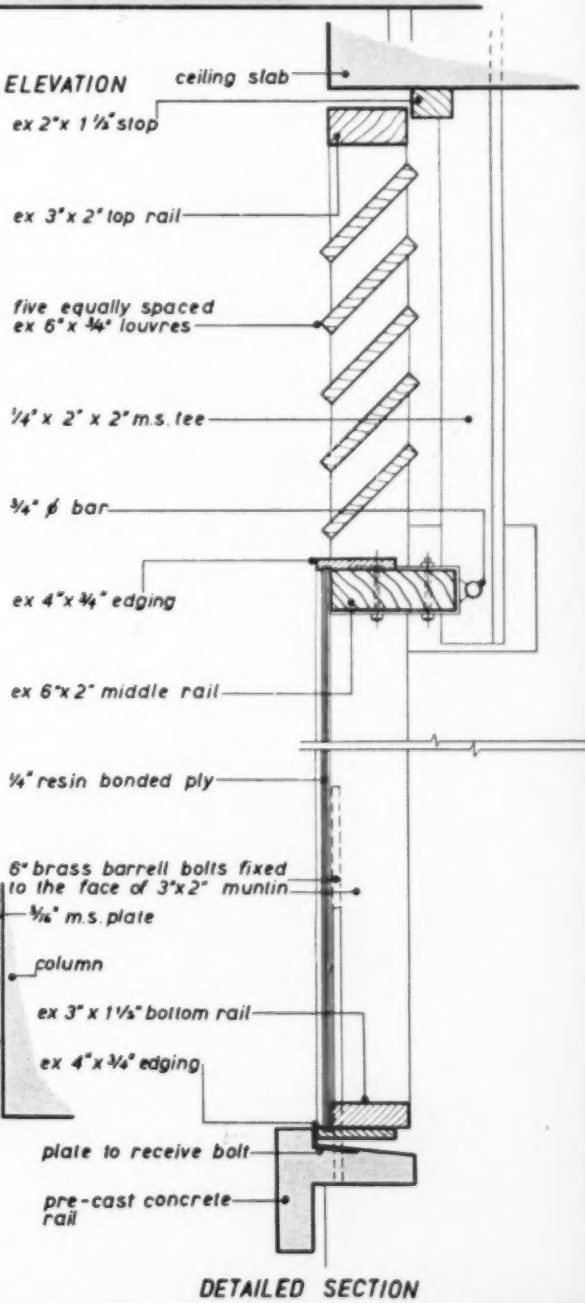
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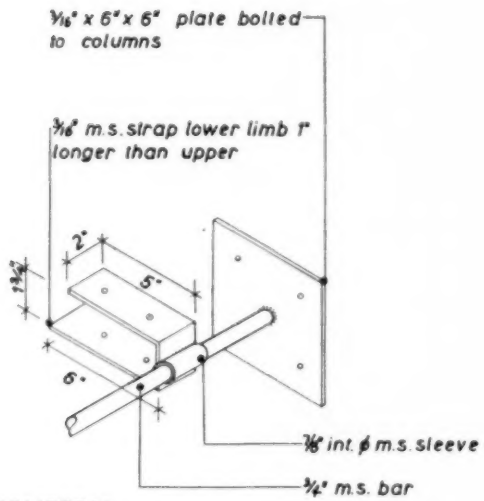


SECTION

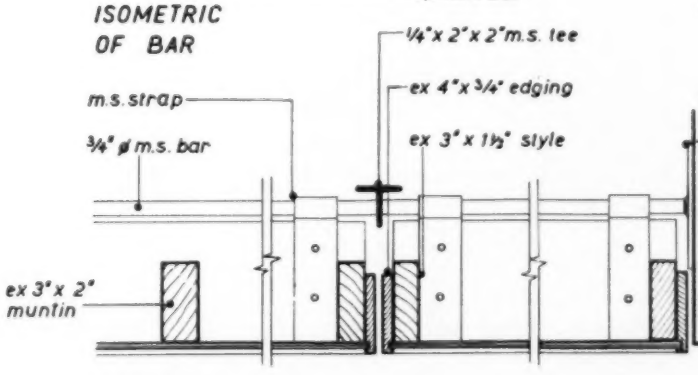
INTERNAL ELEVATION



DETAILED SECTION

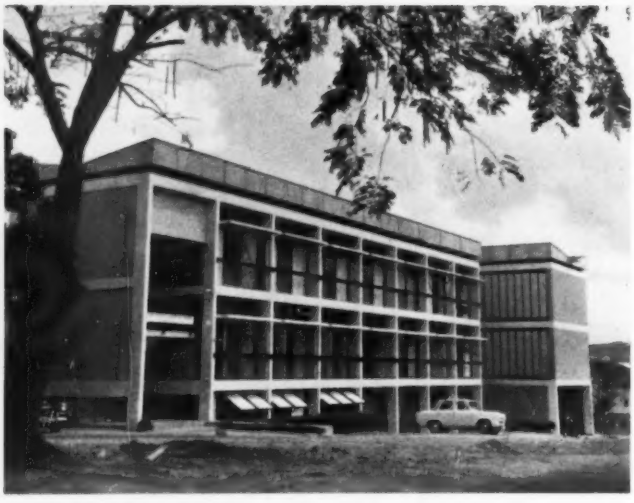


ISOMETRIC OF BAR



DETAILED PLAN





The horizontally pivoted shutters in the Marketing and Export offices in Ibadan, Nigeria, are louvred above the pivot, and finished with ply below, both the louvres and the plywood being finished with clear varnish. The edging surrounding the plywood panel is painted gloss white. The shutters are supported by mild steel tees, cast into the ceiling slab, and these and the pivots are painted black. The architects are Architects' Co-Partnership

HORIZONTALLY PIVOTED SHUTTERS, OFFICES, IBADAN, NIGERIA



(Artist's impression)

Though surfaces vary . . .

the specification

remains the same



59/63 Princes Gate, London, S.W.7

Architects: Messrs. T. Mortimer Burrows & Partners
Contractors: F. W. Barnard Ltd.

The "beauty" of Number Seven decorative finishes is two-fold—their lasting "eye" appeal and their unique variety of applications both interior and exterior. With the suitable primer you can now specify Number Seven Exterior Flat Finish for nearly every standard surface—wood, metal, brick, plaster, concrete—and thus eliminate estimating and ordering complications as well as time wasted in mixing and matching colours. An impressive list of recent contracts is proof of Number Seven's outstanding success in all types of contracts.



NUMBER SEVEN

NUMBER NINE

Where a textured finish is desired, Cementone No. 9 Waterproof Stoneface Composition is exclusively prepared for brick, cement rendering, reinforced concrete, asbestos-cement, plaster, and compo-board surfaces. Alkali-resistant, No. 9 matures to a natural stone finish and is available in ten colours.

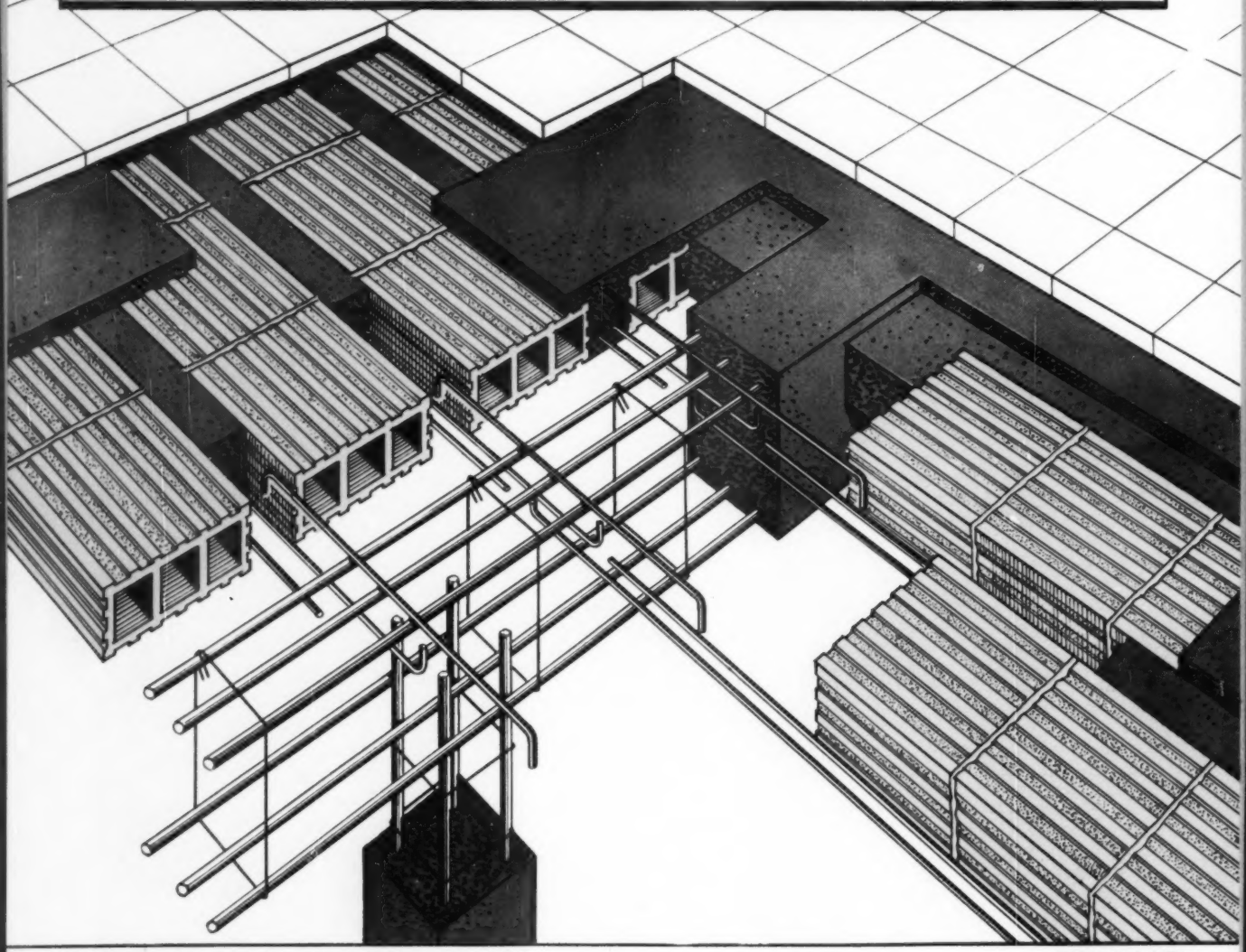
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THE ARCHITECT and Building News, 2 September 1959

'PHORPRES' HOLLOW CLAY FLOOR BLOCKS *and the* IN SITU HOLLOW TILE FLOOR



We wish to thank the Kleine Company, Ltd., for their co-operation in compilation of this advertisement.

EVANS

THE PRODUCT The depth of a Hollow Clay Block Floor, the thickness of the topping or screed of concrete above the blocks, the width of the beams or ribs between rows of blocks and the size, the number and location of the reinforcing steel placed in the ribs, are all governed by the span of the floor and the loading it has to carry. 'Phorpres' Hollow Clay Floor Blocks are specially made for *in situ* floor construction; they are all 12″ long by 12″ wide, but they are available in eight different thicknesses ranging from 3″ to 10″ in multiples of one inch, so that any normal span and loading can be accommodated. All the blocks are grooved to give a good dovetail key, both for the ceiling plaster and for the cast *in situ* concrete.

Filler Tiles, which are also grooved, are available to provide a burnt clay soffit to the ribs, so that the floor can be given a completely all-clay soffit with its attendant advantages. These Filler Tiles (which can also be used as panel heating tiles), are made in three sizes: 12″ x 3″ x ⅝″, 12″ x 4″ x ⅝″, 10″ x 5″ x ⅝″.

METHOD OF CONSTRUCTION To build an *in situ* Hollow Tile Floor, 'Phorpres' Floor Blocks of a suitable depth are laid end to end in rows on temporary shuttering of steel or timber. The rows of blocks are so spaced that the gaps between rows correspond to the designed width of the reinforced ribs. If an all-clay soffit is required, Filler Tiles are laid at the bottom of the rib spaces. When the reinforcing steel has been accurately placed in the designed position, good quality concrete is carefully placed around the reinforcement, in the rib space, and over the top of the blocks (to the thickness of topping required by design), all in one operation. After the necessary time needed for the concrete to gain adequate strength, the temporary shuttering is removed, leaving an all-clay soffit ready to receive the plaster.

THE ADVANTAGES ***Strength*** Properly designed *in situ* Hollow Tile Floors possess great strength combined with light self-weight. The good bonding between the concrete and the grooved blocks ensures that the stresses from concentrated loads are well spread over the structure, and the monolithic character of the floor makes it particularly suitable where vibrations from mechanical sources are to be expected.

Adaptability The *in situ* Hollow Tile Floor can be designed for wide spans without intermediate supports. Moreover, bays need not necessarily be rectangular on plan and can be constructed to almost any plan shape without undue extra cost. Cross-reinforced floors, needing no secondary beams, may be built with uninterrupted soffits. The Hollow Tile Floor, with its strength and weight-saving properties, is also particularly suited to the construction of cantilevered balconies, etc.

Heating Panel heating, heating coils, air-conditioning ducts and mains services may be incorporated in the floor during the construction stage.

Fire Resistance Protection to the concrete and reinforcing steel, provided by the fired Clay Blocks and Filler Tiles, gives the *in situ* Hollow Tile Floor excellent resistance against fire.

A hollow tile floor is a quality floor

PHORPRES

LONDON BRICK COMPANY LIMITED in the service of the building industry

Head Office: Africa House, Kingsway, London, W.C.2. Tel: HOLborn 8282
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BY APPOINTMENT
TO HER MAJESTY QUEEN ELIZABETH II
BRICK MAKERS

JUDGELITE

Vitreous enamelled aluminium sheeting

THE LATEST, GREATEST DEVELOPMENT FOR CURTAIN WALLING IN SHEET AND EXTRUDED OR FORMED SECTIONS

- Can be cut, punched and drilled
- Rustproof and non-corrosive
- Readily adaptable on site
- Light in weight
- Time and labour saving
- Strong and flexible

JUDGELITE

JUDGELITE

JUDGELITE

Judgelite is made by a new process of fusing vitreous enamel on to a specially prepared Aluminium surface. It provides a light, easily handled, colourful wall material, the components of which can be cut, bent, drilled, punched, and if necessary, screwed or bolted into position without cracking, starring, flaking or splitting.

Judgelite is totally and permanently protected against rust, corrosion and industrial atmospheres.

Judgelite can be specified in any thickness and size of metal down to 24 gauge, and in size of sheet to the extent of 20 ft. × 4 ft. 6 in. It is possible to exceed these dimensions lengthwise, and to cater for modules up to 5 ft. Consultation on precise requirements combining extremes of length and width would be advantageous.

Judgelite has a hardwearing and attractive surface and can be produced to users' specified colours, or to any colour selected from our standard range of 150 graduations throughout the spectrum, and varying from full gloss to matt as desired. The colours are light-fast and very suitable for both internal and external use.

Judgelite is admirably suited to bonding on insulating materials to achieve specified thermal or physical characteristics in combination with colourful and durable exposed surfaces.

Ernest Stevens' experts and technicians are ready to advise you on all aspects and uses of Judgelite. They recommend it for use in offices, schools and factories public buildings and housing estates where colour, light and speedy assembly are required.



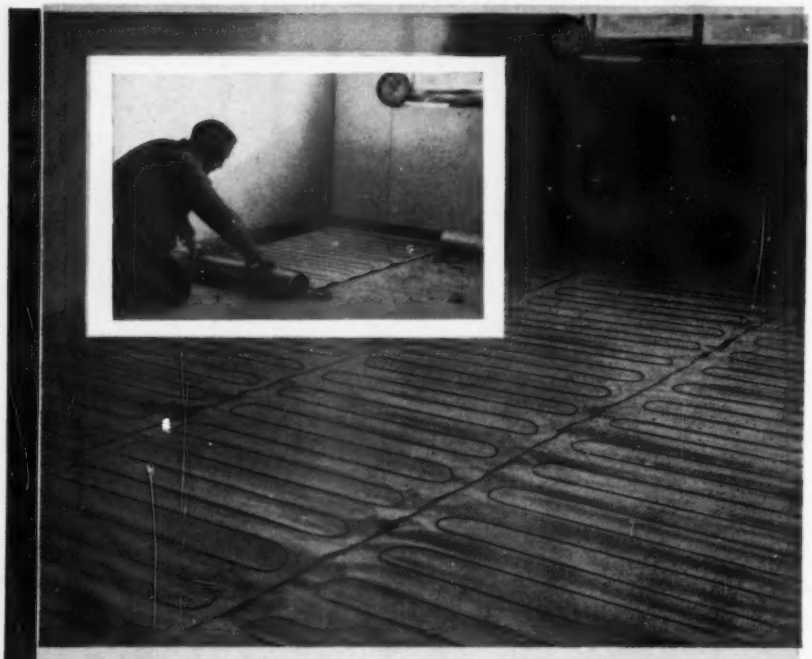
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ERNEST STEVENS LIMITED, CRADLEY HEATH, STAFFS.

(Manufacturers of the famous 'JUDGE' Vitreous Enamelware)



In less time than it takes you to play the short 5th



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CONTRACT • NEWS •

Notes below give basic data of contracts open under locality and authority which are in a bold type. References indicate: (a) type of work (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading (c) deposit (d) last date of application (e) last date and time for submission of tenders. Full details of contracts marked • are given in the advertisement section.

OPEN

BUILDING

BASINGSTOKE B.C. (a) Erection of 42 dwellings in three-storey flats, houses and bungalows, a shop and 49 garages, south of St. Peter's Road. (b) Borough Architect, Municipal Buildings. (c) 2gn. (e) September 14.

• • •

BILLINGHAM (Co. DURHAM) U.C. (a) One hundred and thirty-one traditional type houses on Roseberry Road site No. 8. Contract period 15 months. (b) Engineer and Surveyor, Council Offices, Haverton Hill, Billingham. (c) 2gn. (e) September 15.

• • •

BOURNEMOUTH B.C. (a) Erection of a social hall and library at Cunning Lake Crescent, Kinson estate, a prefabricated structure with a brick ancillary building. (b) Borough Architect, Room 106, Town Hall. (c) 2gn. (e) September 15.

• • •

BRIGHTON B.C. (a) Erection of a five-class primary school at Westdene. (b) Borough Surveyor, Engineer and Planning Officer, 26-30 King's Road, Brighton. (c) 2gn. (e) September 15.

• • •

CARMARTHENSHIRE C.C. (a) Erection of a fire station at New Quay. (b) County Architect, County Hall, Aberayron, Cards. (c) 1gn. (e) October 10.

• • •

CHATHAM B.C. (a) Erection of a two-storey building comprising garages, stores, grit stores, and reinforced concrete grit hoppers at Brook Depot. (b) Engineer and Surveyor, Town Hall. (c) 2gn. (e) September 21.

• • •

CROMPTON U.C. (a) Single-storey extension to public baths, Farrow Street, Shaw. (b) Engineer and Surveyor, Town Hall, Shaw. (c) £2. (b) September 19.

• • •

EIRE—KILDARE C.C. (a) The carrying out of Regional Water Supply Scheme 2/3, Contract No. 5, for Kildare County Council. (b) Nicholas O'Dwyer & Son, Constructing Engineers, 6 Burlington Road, Dublin. (c) 10gn. (e) September 15.

• • •

GODSTONE R.C. (a) Erection of 16 flats in two blocks at High Street, Dormansland. (b) Engineer and Surveyor, Council Offices, Oxted, Surrey. (c) 2gn. (e) September 23.

• • •

HESTON AND ISLEWORTH B.C. (a) 36 flats, 96 houses, 65 garages at Cranford Lane (North) housing estate. (b) Borough Surveyor, 88 Lampton Road, Hounslow. (c) 2gn. (e) September 18.

• • •

KENILWORTH U.C. (a) Erection of 16 bungalows and flats for old persons, Beauchamp Road. (b) Surveyor, Council House. (e) September 12.

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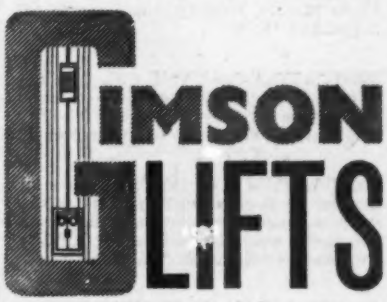
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LEEDS C.C. (a) Scheme 809. Erection of 60 traditional dwellings at Cow Close. Scheme 810. Twenty-four traditional dwellings at Sissons Green and Cardinal Gardens. Scheme 814. Nine shops with maisonnettes over at Ireland Wood. (b) City Architect, Priestley House, Quarry Hill, Leeds, 9. (c) £2. (e) October 1.

* * *

LOUTH B.C. (a) Erection of nine dwellings, with ancillary works, fronting Cisterngate and Grays Road. (b) Architects, Wm. Saunders & Partners, 57 Upgate, Louth, Lincs, and 18 Queen's Parade, Grimsby. (c) 2gn. (e) September 21.

* * *

MONTGOMERYSHIRE C.C. (a) First phase of a county library at Newtown. (b) County Architect, County Offices, Newtown. (c) 2gn. (e) September 7.

* * *

MYNYDDISLWYN U.C. (a) Erection of 42 traditional houses at Upper Penllwyn Housing site at Pontllanfraith. (b) Engineer and Surveyor, Council Offices, Pontllanfraith, Blackwood, Mon. (c) 3gn. (e) September 17.

* * *

NEWCASTLE REGIONAL HOSPITAL BOARD. (a) Modernisation and extension of main kitchen at Newcastle General Hospital. The two-storey extension will have bulk food stores on ground floor and staff rooms and offices above. (b) Secretary to the Board, Benfield Road, Newcastle-on-Tyne, 6. (d) September 4. (e) Work to commence in November, 1959, approx.

* * *

NEWCASTLE-ON-TYNE C.C. (a) Construction of the new Town Hall. Applicants must possess the necessary calibre and requisite organisation, together with adequate financial and material reserve to carry out work expeditiously and satisfactorily. (b) City Architect, 10 Cloth Market, Newcastle-on-Tyne, 1. (d) September 16.

* * *

NEWCASTLE-ON-TYNE C.C. (a) Construction of covered turnstiles in brick and timber at City Stadium. (b) City Engineer, Town Hall. (e) September 8.

* * *

NEW SARUM C.C. (a) Construction of a coach station and all ancillary works on a site adjoining the swimming bath car park, near Castle Street. (b) City Engineer. (e) September 25.

* * *

OLDHAM EDUCATION COMMITTEE. (a) Additions and alterations at Strinesdale Open-Air School. (b) Cameron & Middleston, chartered quantity surveyors, 21 Queen Street, Oldham. (c) 2gn. (e) September 10.

* * *

PORTHCAWL U.C. (a) Following at Wilderness estate. (1) 40 traditional dwellings; (2) four shops with flats; (3) 10 garages. (b) Engineer and Surveyor's Office, Council Offices, South Road. (c) 3gn. (e) September 21.

* * *

PORTSMOUTH C.C. (a) (1) Erection of 15 flats, Prince George Street; (2) 13 flats and maisonnettes, Spencer Road; (3) three shops, 15 flats and maisonnettes and garages, Middle Park Way, Leigh Park. (b) City Architect, 1 Western Parade. (c) £1 each contract. (e) September 15.

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PORT TALBOT, GLAM, B.C. (a) Fourteen dwellings, consisting of four pairs of houses and six maisonnettes, Station Terrace, Bryn. (b) G. V. Griffiths, Borough Engineer and Surveyor, Municipal Buildings. (c) 2gn. (e) September 14.

* * *

READING B.C. (a) Groups of garages totalling 103 on 11 sites spread over six of the Corporation's housing estates. Tenders for all garages on any or all the estates, but not on individual sites. (b) Borough Architect, Town Hall. (e) September 11.

* * *

RUGBY R.C. (a) Erection of 16 houses at Long Lawford. (b) Council's Surveyor, 16 Warwick Street, Rugby. (c) 3gn. (e) September 23.

* * *

RUTLAND C.C. (a) Erection of new C.E. school (primary) at Great Casterton. (b) County Architect, County Hall, Oakham. (c) 2gn. (e) September 18.

* * *

SHEFFIELD REGIONAL HOSPITAL BOARD. (a) New hospital to accommodate 90 chronic sick patients, Mount Vernon Hospital, Barnsley. (b) Mr. E. F. Wilson, A.R.I.B.A., Fulwood House, Old Fulwood Road, Sheffield, 10. (d) Immediately. From the names submitted a number will be selected to receive documents.

* * *

SOUTH SHIELDS B.C. (a) Erection of a crematorium at West Simonside, South Shields. (b) Borough Engineer, Town Hall. (c) 2gn. (e) September 30.

* * *

STAVELEY U.C. (a) Erection of 42 three-bedroom houses, brick built, at Inkersall Green estate. (b) Engineer and Surveyor, Council Offices, Lowgates, Staveley, near Chesterfield. (c) 1gn. (e) September 11.

* * *

TAMWORTH R.C. (a) Erection of new Council Offices and administrative centre, with a garage for seven vehicles, alterations to public mortuary and other buildings at the Council's depot, Tamworth Road, Kettlebrook, Wilnecote, near Tamworth. (b) Architect, Mr. Ernest W. Haysom, F.R.I.B.A., Curtis House, Poplar Road, Solihull, Warwickshire. (c) 2gn.

* * *

WARWICKSHIRE C.C. (a) Contractors wishing to be placed on the Council's list for new building and other works. (b) County Architect, Shire Hall, Warwick. (d) September 7. The list is divided into sub-sections as follows: (1) Works costing between £10,000 and £50,000; (2) £50,000 and £100,000; (3) in excess of £100,000.

* * *

WAYLAND R.C. (a) Council chamber and bungalow, with site works. (b) Surveyor, Council Offices, Attleborough, Norfolk. (c) 2gn. (e) September 10.

* * *

WIRRAL U.C. (a) Extension and alterations to Council Offices, Heswall. (b) Quiggin & Gee, architects, 11 Old Hall Street, Liverpool, 3. (c) 2gn. (e) September 19.

* * *

WITNEY, OXON, U.C. (a) Eight bungalows, two houses, together with demolition of nine cottages, Swingburn Place. (b) Engineer and Surveyor, 26 Church Green, Witney. (c) 3gn. (e) September 11.

YORK C.C. (a) Erection of a two-form entry instalment of Low Fields County Secondary School at Acomb, York. (b) City Architect, 8 St. Leonard's Place, York. (c) £3. (d) After September 11. (e) October 6.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BARKING E.C. (1) Extensions. (2) South-East Technical College. (3) Hammond & Miles Ltd., Ilford, E.

• • •

BELFAST C.C. (1) Erection and completion on existing piled foundations of multi-storey and single-storey superstructure, etc., for the College of Technology. (3) McAuley, McInroy & Co. Ltd., 2 Windsor Road, Belfast. (3) £527,000.

• • •

BIRMINGHAM C.C. (1) Building and civil engineering work. (2) Refuse depot and salvage works, Lifford Lane, King's Norton. (3) Wilson Lovatt & Sons Ltd., Clarence Street, Wolverhampton. (4) £268,403.

• • •

BLACKBURN, LANCS, B.C. (1) Phase 3 of new technical college. (3) Wm. Livesey & Sons Ltd., Nova Scotia Sawmills, Blackburn.

• • •

BOLTON. (1) Rebuilding shops and offices. (2) Victoria Square, for Arndale Property Trust Ltd., Bradford. (3) Leslie & Co. Ltd., 80 Woodlands Road, Darlington.

• • •

BLACKBURN B.C. (1) 100 flats and eight houses. (2) Direct labour. (4) £141,372.

• • •

BRADFORD B.C. (1) 160 dwellings and roads and sewerage. (2) Allerton estate. (3) Direct labour. (4) £288,535 and £107,221.

• • •

BRIERLEY HILL B.C. (1) Erection of 50, 42 and 36 houses. (2) Market Street site. (3) Buildings & Equipment Ltd., 55 Darlington Street, Wolverhampton. (4) £58,185, £51,473 and £44,380.

• • •

CAMBRIDGESHIRE C.C. (1) Erection of a primary school. (2) Burwell. (3) F. J. & T. E. Prime, 26 Burleigh Street, Cambridge. (4) £38,000.

• • •

COVENTRY C.C. (1) Flats with ground floor motor showroom. (2) Corporation Street. (3) Geo. Wimpey & Co. Ltd., London, W.6. (4) £60,984

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DAGENHAM, ESSEX. (1) Erection of a four-storey block of offices for Ford Motor Co. Ltd. (3) Turriff Construction Corporation, Budbrooke Road, Warwick. (4) £220,000.

• • •

DEWSBURY B.C. (1) Erection of secondary technical school. (3) Wm. Airey & Sons (Leeds) Ltd., Eldon House, Leeds, 10. (4) £227,331.

• • •

GLASGOW C.C. (1) Erection of three 20-storey blocks of flats. (2) Royston Road area. (3) George Wimpey & Co. Ltd., London, W.6. (4) £1,250,000.

• • •

IPSWICH B.C. (1) 80 flats. (2) Chantry estate. (3) Macro (Ipswich) Ltd., 10 National Provincial Bank Chambers, Ipswich. (4) £93,900.

• • •

KNOCKHOLT, KENT. (1) Erection of a C.E. school. (3) Ridgeway Contractors Ltd., Orpington, Kent.

• • •

LONDON C.C. (1) Reconstruction and conversion of a nine-storey office block for Granada Group. (2) Golden Square. (3) Tersons Ltd., Dollis Park, Finchley, N.3.

• • •

NEW FOREST, HANTS, R.C. (1) 194 houses, 85 garages. (2) Butts Ash, Hythe. (3) J. C. Nicholls Ltd., Court Lane, Cosham, Portsmouth. (4) £259,865.

• • •

READING. (1) Erection of shops and offices. (2) Friar Street and Gerrard Street. (3) Bernard Sunley & Sons Ltd., 25 Berkeley Square, London, W.1. (4) £350,000.

• • •

SCARBOROUGH B.C. (1) Crematorium. (2) Woodlands. (3) Plaxtons (Scarborough) Ltd., Seamer Road, Scarborough. (4) £50,485.

• • •

STEPNEY B.C. (1) 75 flats. (2) Martineau Street, E.1. (3) M. J. Gleeson (Contractors) Ltd., Haredon, London Road, North Cheam, Surrey.

• • •

STOCKPORT B.C. (1) 51 dwellings. (2) Brinnington neighbourhood unit. (3) F. Shepley (Builders) Ltd., Rostrevor Road, Davenport, Stockport. (4) £81,910.

• • •

TOTTENHAM B.C. (1) 212 dwellings. (2) White Hart Lane. (3) M. J. Gleeson (Contractors) Ltd., Haredon House, London Road, North Cheam, Surrey. (4) £504,409.

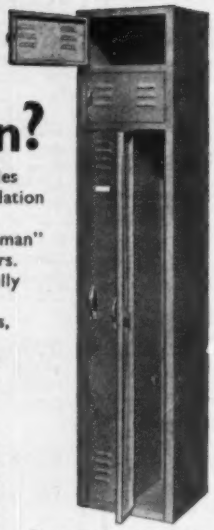
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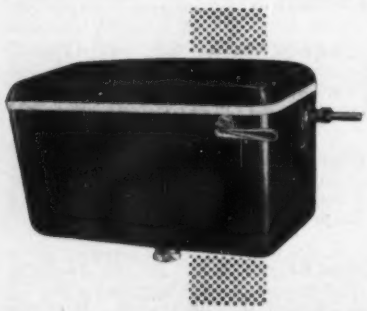
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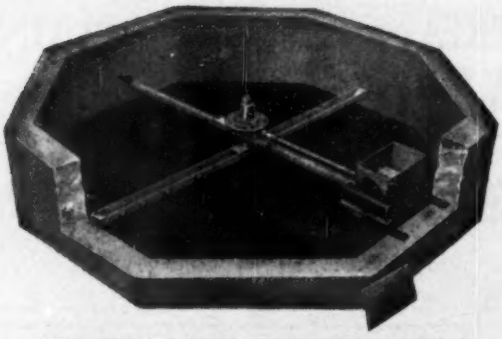
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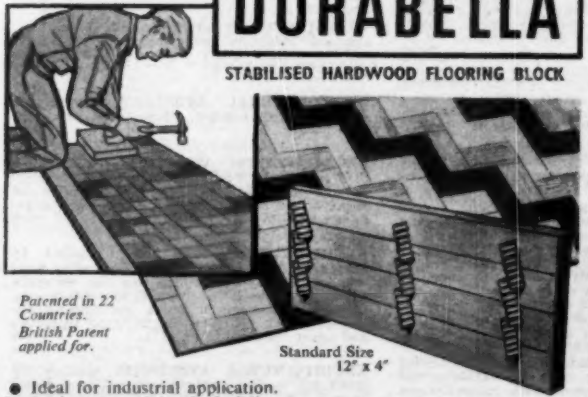
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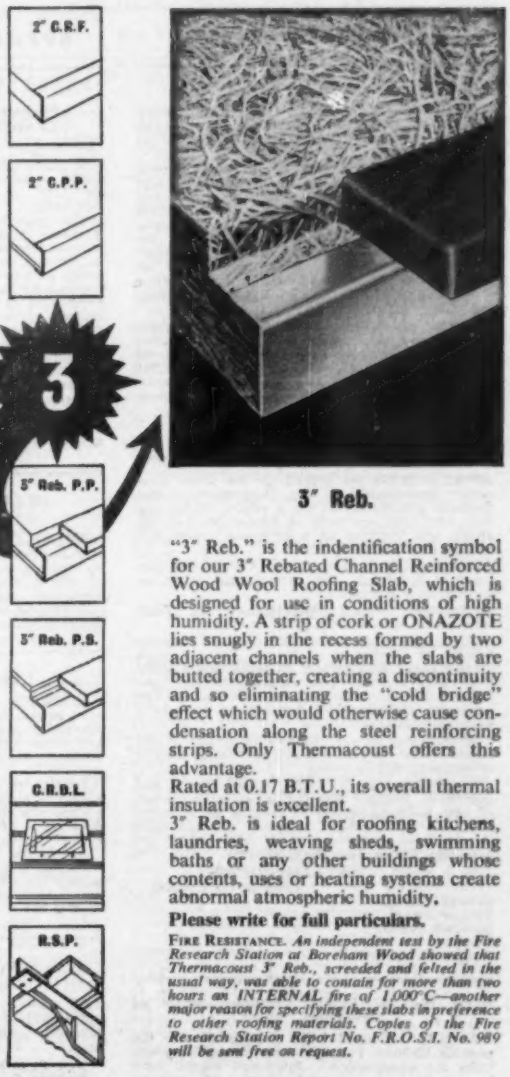
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APPLICATIONS are invited for a newly created **CHAIR of BUILDING SCIENCE** in the Department of Architecture, to begin duties as soon as possible.

In seeking a Professor of Building Science, the University is looking for a candidate who has been trained in some branch of science and has subsequently had experience in a relevant field relating to building, such as, for example, Building Materials, Building Services, or the Physics of Environment. Alternatively, he might be an architect with special interest in an experience of scientific aspects of the subject.

Salary £2,450 a year, with F.S.S.U. provision and family allowance.

Further particulars should be obtained from the Registrar to whom applications (20 copies—one only from overseas candidates) should be sent by October 17, 1959. [5503

Elstree Rural District Council

APPOINTMENT OF TEMPORARY ARCHITECTURAL ASSISTANT

APPLICATIONS are invited for the above temporary appointment in the Department of the Engineer and Surveyor, for a period of not less than two years, on work in connection with the design and erection of a proposed public hall and covered swimming pool.

Salary within Special Grade £785/£1,070 plus London Weighting, the commencing salary to depend upon experience.

Candidates should have passed the Final examination of the R.I.B.A. or equivalent.

The appointment will be subject to the National Scheme of Conditions of Service; the provisions of the Local Government Superannuation Acts, 1937-1953, and will be determinable by one month's notice, in writing, on either side. The successful candidate will be required to pass a medical examination.

Relationship to any member or officer of the Council must be disclosed and canvassing directly or indirectly will disqualify.

Applications stating age, qualifications and experience, together with the names and addresses of two referees, should be sent in an envelope endorsed "Architectural Assistant" so as to reach the Engineer and Surveyor at these offices not later than Friday, September 11, 1959.

A. LANCASHIRE,
Clerk of the Council.

Council Offices,
Shenley Road,
Borehamwood,
Herts.
August 27, 1959. [5528

Royal West of England Academy School of Architecture, Bristol

THE School Council invite applications for the post of Deputy Principal with special responsibility for construction. Applicants should have had some years of professional and teaching experience and preferably the Degree or Diploma of a recognized School of Architecture. Salary: £1,375 x £50—£1,525. There will be pay for additional services which could amount to £50/£100.

Applications giving full particulars and stating the names of two referees should be made to the Hon. Secretary to the School Council, 23 Berkeley Square, Bristol, 8, by September 21, 1959. [5546

County Borough of Newport

APPLICATIONS are invited for following established posts:

(i) **Assistant Quantity Surveyor,** Grade APT IV.
(ii) **Assistant Quantity Surveyor,** Grade APT I.
(iii) **Assistant Heating Engineer,** Grade APT III.
(iv) **Two Architectural Assistants,** Grade APT I.

Salary for each appointment to commence at any point in scale according to ability.

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Housing accommodation will be made available according to circumstances for posts (i) and (iii).

Application forms from Borough Architect, Civic Centre, Newport, Mon., returnable by Monday, September 14, 1959, at latest. [5547

APPOINTMENTS (cont)

City of Sheffield

APPOINTMENT OF SENIOR GROUP LEADER ARCHITECT (Education)

Salary scale: £1,215 x £60(2) x £55(2) to £1,445

APPLICATIONS are invited for the above-mentioned appointment on the permanent staff of the City Architect, Mr. J. L. Womersley, F.R.I.B.A., Dist.T.P., M.T.P.I.

This post ranks next to the Chief Assistant Architect (Education and General) and the successful candidate will be required to deputise for him as the occasion demands on Education work, in addition to taking charge of a group responsible for the design and supervision to completion of major works on new schools and colleges.

Applications stating age, education and training, qualifications, experience, present and past appointments (with dates and salaries) and the names and addresses of persons to whom reference may be made, should reach the undersigned by Monday, September 21, 1959.

JOHN HEYS,
Town Clerk.

August 13, 1959. [5535

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Middlesex County Council

VACANCIES exist for Assistant Architects who have passed the R.I.B.A. Final examinations, for interesting work on schools, technical colleges and other buildings under the direction of Mr. Whitfield Lewis, A.R.I.B.A., the County Architect.

Salaries up to £1,100 p.a. on established staff, subject to medical fitness.

Vacancies also exist for Junior Architectural Assistants, APT I (£640/£795 p.a. if over 26). Prescribed conditions.

All posts: application forms (s.a. foolscap envelope) from the County Architect, 1 Queen Anne's Gate Buildings, Dartmouth Street, S.W.1, returnable within ten days. (Quote B.63, A. & B.N.) [5540

City and County of Newcastle upon Tyne
City Architect's Department

THE City Architect will be pleased to receive applications from suitably qualified persons for the following architectural vacancies in his Department:

New Town Hall Section: APT IV.
General Section: Special Class, APT II and APT I.
Education Section: Special Class, APT II.
Housing Section: APT IV, Special Class.
Rehousing Section: APT IV, APT II.

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Special Class (£785/£1,070 per annum).
APT II (£765/£880 per annum).
APT I (£610/£765 per annum).

The Department is engaged upon an interesting and varied programme of work, including the new Town Hall, multi-storey flats, redevelopment schemes, further education projects, and a variety of general building works.

The appointments will be subject to the provisions of the Local Government Superannuation Acts, 1937-1953.

Application forms and full particulars may be obtained from George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18 Cloth Market, Newcastle upon Tyne, 1. Applicants must state the Section and Grade applied for when requesting particulars.

Closing date for receipt of completed applications: Saturday, September 26, 1959.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
August 28, 1959. [5553

TENDERS

City and County of Newcastle upon Tyne
NEW TOWN HALL

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Applicants must possess the necessary calibre and requisite organization, together with adequate financial and material reserves, to carry out the work expeditiously and satisfactorily.

Initial applications for more detailed information as to the work to be carried out should reach the City Architect not later than Wednesday, September 16, 1959.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
August 20, 1959. [5518

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ARCHITECTURAL ASSISTANT at Final standard required by Buckinghamshire office. Interesting and varied work with scope for initiative and responsibility. State age, experience and salary required to Box 4772. [5550

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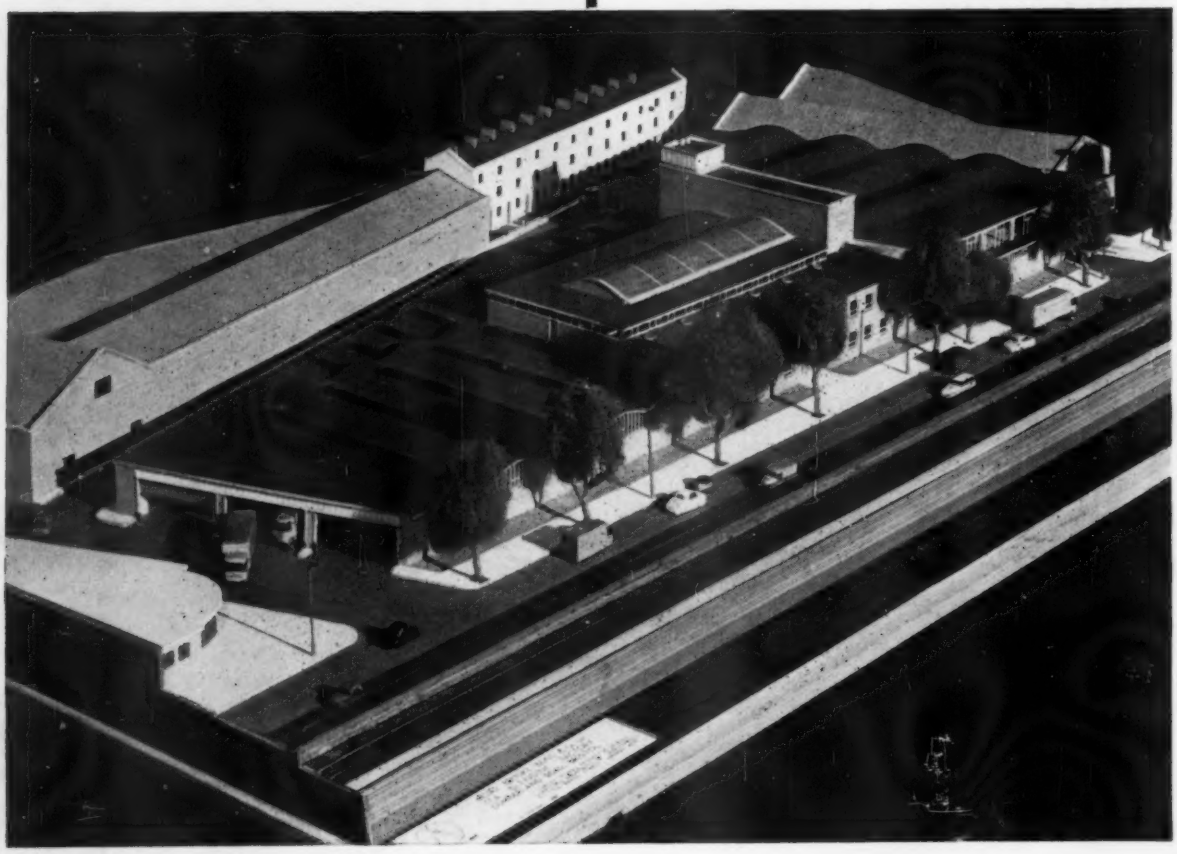
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